MANUAL OF THE ADMINISTRATION

OF THE

MADRAS PRESIDENCY,

IN ILLUSTRATION OF THE

RECORDS OF GOVERNMENT & THE YEARLY ADMINISTRATION REPORTS.

IN THREE VOLUMES.

VOL. II.—APPENDICES,

Containing articles and statements supplementary to the articles in Volume I, arranged under general heads.

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CONTENTS.

SHORT ALPHABETICAL INDEX TO THE CONTENTS OF VOL. II.

Note.—*In all vernacular lists contained in these Appendices where it can be done without inconvenience, the orthographic method of Volume III is introduced; for which see paragraph* 738 *of Volume I, and Volume III itself.*

APPENDICES.

APPENDIX No. I.

PHYSICAL GEOGRAPHY OF THE PRESIDENCY.

Introduction.—India, or Mid Southern Asia as it has been called, consists of two districts; each on the whole triangular, but with their bases opposed, and differing in their natural conditions. The northern plain penetrates deeply into the interior of the Asiatic continent, is for the most part surrounded by lofty mountains, and being traversed by great rivers touches the ocean at their mouths only. The second district is a peninsula, extending as far into the ocean as the northern plain extends into the continent; but occupied by mountains and table-lands of moderate elevation, and having a minor river-system. The ancients specified the Ganges as the natural division between two portions of India. The moderns with more reason divide it into the two triangular portions marked by the Asiatic ocean shore; of which the peninsula commences at a line drawn from the Nerbudda river on the west to the Mahanuddy river on the east. In the early part of the earth's history the most southern part of the peninsula, if not the whole of it, must have been separated by the ocean from the main continent. An original connection again with Madagascar and Africa appears in every way probable. A connection with the Malay countries has been asserted, but this seems more doubtful.

2. *The Deccan plateau.*—South of the Nerbudda and parallel with it lie the Sautpoora mountains which, extending across the greater half of the country from sea to sea, may equally be regarded as a northern boundary. The peninsula below this is mainly occupied by the Deccan plateau; which comprises part of Bombay Presidency, the Berars and the Nizam's Dominions, the Ceded Districts of the Madras Presidency, and Mysore. The Deccan plateau follows the triangular shape of the peninsula. It terminates abruptly on the west in the Western Ghauts, called by the natives of the Bombay Presidency the Sahyadry range; and shelves to the east, on which side its hill boundary called the Eastern Ghauts is somewhat discontinuous. The whole is surrounded by a margin of low country. Regarding the northern part of the plateau it is not necessary here to speak. The valley of the Godavery and its tributaries coincides with a broad depression in the surface which slopes down gently from Nagpore in the Central Provinces to the sea. West and south from this valley system, the elevation of the country is greater. On the margin of the ghauts, its average height is not below 2,000 feet, and the marginal range includes some hills over 4,000 feet in height. The surface of the plateau declines somewhat to the Toongabudra, a large tributary of the Kistna, but rises again to the south to form the tableland of Mysore. Bellary, at 1,450 feet, is not far to the south of the above-named river; while Bangalore, at 3,000 feet, is situated on one of the highest parts of the Mysore plateau. Except where under field cultivation, the central plateau is a bare grassy country, with a gently undulating surface, a ridge of hills here and there rising above the general level. The Kistna valley is very similar in character; but there are parts where the river breaks in picturesque gorges through the Nullamullay mountains east of Kurnool. All the main rivers of the Presidency, the Godavery, the Kistna, the Pennair, and the Cauvery, have their first courses in this plateau; and all flow from west to east. Notes on the geology of the Presidency from the point of view of the stromatological and lithological classifications of that science will be found in the third appendix. The crust of the earth at the Deccan plateau within the limits of the Presidency consists of two great series, the lower one granitoid and the upper one schistose, of metamorphic or gneissic rocks arranged in zones running generally southward, and forming the several hill ranges which occur on the surface of the plateau. On the eastern side of the plateau from the Kistna to nearly the latitude of Madras the gneissic rocks are overlaid by a series of sub-metamorphic or transition rocks consisting of quartzites, slates, schists and crystalline or sub-crystalline limestones known as the Cuddapah series. Resting on these again is another series of rocks—quartzites, shales and limestones—which occupy two minor basins; one on the north-western and the other on the north-eastern sides of the Cuddapah basin. This younger series is known as the Kurnool series. Both have been affected by the same lateral movement that produced the present position of the gneiss, and like it show a more or less north and south direction of the hill ranges they form. Up to this point there are no organic remains; for though originally of aqueous origin as attested by their stratified character, the gneiss and other formations have been subsequently crystallized by the effects of subterranean heat and pressure due to contraction of the whole crust. Organic remains, if such existed, must have been in the process destroyed. Through all these deposits there have been great volcanic outbursts, and the extensive overflow or "trap" of the Deccan is one of the most remarkable in the world. It however occupies the north-west of the plateau and does not touch this Presidency. Two surface materials peculiar to this portion of the world are found in the Deccan plateau; namely, laterite, a species of iron-clay, and regar soil otherwise known as black-cotton soil. The former is due to some form of disintegration of the rocky surface, and the latter is a humus formed by ancient forest growths. Black-cotton soil is remarkable for its power of retaining moisture and for its fertility. From the absence of marine remains, it must be held that the southern part of the Deccan plateau in its condition of dry land is of immense antiquity. It dates as such probably from the times known as palæozoic. Notes on the climate also of the Presidency will be found in the second appendix. The Deccan plateau is swept by the south-west monsoon, but not until it has surmounted the barrier of the Western Ghauts; and hence the rainfall is, as a rule, light at places situated under the lee of the range, and but moderate over the more easterly parts of the plateau. The rains however are prolonged some three or four weeks later than in India to the north of the Sautpooras, since they are brought also by the easterly winds, which blow from the Bay of Bengal in October and the early part of November; when the recurved southerly wind ceases to blow up the Gangetic valley, and sets towards the Carnatic as the north-east monsoon.

3. *The Western Ghauts.*—These extend from the Tapty river in the Bombay Presidency just south of the Sautpooras down to Cape Comorin. They are only divided by the Palghaut gap, the northern section measuring 800 miles in length and the southern section 200 miles. The opposite faces of the Western Ghauts, at least with the exception of their most southerly portion, differ very remarkably. To the side of the land there is a gradual slope to the tableland or plateau proper of the Deccan. Towards the sea there are almost perpendicular precipices. The Western Ghauts are a complete watershed, for no stream of any magnitude finds its way through them. These formations however have to the north been broken through by igneous rocks as mentioned in that case. There the upper surface consists of horizontal or nearly horizontal strata of basalt and similar rocks, even older than the trap. The strata are cut into a deep scarp or inland cliff on the western side by the influence of the atmosphere, and perhaps by marine action; and are eroded though less abruptly to the eastward. South of about 16° latitude, or within this Presidency, the horizontal

igneous rocks disappear; and the range then shows the original metamorphic strata. As to the origin of these mountains, nothing definite can be asserted. They may originally have been set in their present direction by geological disturbance. Locally there is a connection between the direction of the bedding and the direction of the range. The fact, however, that all the principal elevations, such as the Neilgherries, Pulneys, &c., are plateaus and not ridges tends to show that denudation has played at least a considerable part in determining their contour. The Western Ghauts are exposed to the full force of the south-west monsoon and rains. As a consequence the moisture on the sea face is excessive. The Palghaut gap affords a singular passage to the winds, elsewhere barred by the range. The country immediately east of this gap receives the rainfall of the south-west monsoon, and even during the north-east monsoon ships passing Beypore meet with a much stronger wind from the land than is felt elsewhere along the coast.

4. *The Eastern Ghauts.*—South of the combined delta of the Godavery and Kistna, and nearly to the latitude of Madras, the central plateau is flanked on its eastern border by a double range of hills usually called the Eastern Ghauts. By some this name is denied, as indicating a continuity which does not in fact exist. The Eastern Ghauts are for the most part bare and rocky, and the station of Cuddapah, which is surrounded by these hills, is notorious as one of the hottest in the Presidency. A little to the north of Madras, the Eastern Ghauts trend off to the south-westward, bounding the high plateau of Mysore. At their junction with the Western Ghauts, rises the plateau of the Neilgherry Hills. The Eastern Ghauts are not a watershed, and the rivers of the peninsula break through them. Their geological formation is granite, and gneiss and mica slate; with clay slate, hornblende, and primitive limestone overlying. These hills may from one point of view be regarded as the eastern cliff of the Jeypore and Mysore plateaus, and not separable from them. They do not exercise any great effect on meteorology; but still to a certain extent they break the force of the north-east monsoon, preventing it from penetrating inland.

5. *Southern hill groups.*—The junction of the Western and Eastern Ghauts does not mark the termination of the former; which, as already stated, extend to Cape Comorin. As offshoots, however, of the Western Ghauts to the south lie the Anamullays, Pulneys, Travancore Hills, and other hill-masses. Some of these rival the Neilgherries in height. They all consist of gneissic rocks.

6. *The marginal surrounding plain.*—The strip of low country that gives the margin to the peninsula below the ghauts varies in its character. Along the west coast it is narrow and tolerably uniform in width, rocky, and well watered from the Western Ghauts; but traversed only by small rivers or rather mountain torrents. The rainfall being heavy and the climate warm and damp, the vegetation is dense and characteristically tropical; and the steep slopes of the ghauts, where they have not been artificially cleared, are thickly clothed with forest. The coast of Malabar and Travancore is fringed with sand-spits, enclosing backwaters which are so connected as to afford a complete system of inland navigation. The climate of the west coast may be well seen from the remarks in the article on Malabar in a later appendix. On the east coast, the marginal plain forms the exterior province of the Carnatic. It occupies from one-third to one-half the width of the peninsula, and extends up the valley of the Cauvery nearly to the foot of the Neilgherry Hills; where it is some 2,000 feet above the sea. North of the Cauvery a group of detached hills or plateaus, some of them 4,000 or 5,000 feet in height, occupy the centre of the peninsula, standing out in front of the Eastern Ghauts. These go by the names of the Shevaroys, Jawaudies, &c. At the entrance of one of the passes between these hills, lies the station of Salem; while Trichinopoly is 20 miles from their south-east corner, at the head of the Cauvery delta. The latter delta constitutes the rich province of Tanjore. This is not a swamp however, but an upraised delta, every part of which is high above sea-level; while along the coast it presents at some points a low cliff of alluvial deposits, now undergoing slow erosion by the sea. Immediately north of Madras, the coast plain of the Payeen Ghaut is contracted to about 30 or 40 miles in width; and thence to the delta of the Kistna and Godavery, it extends along the foot of the Veligonda Hills with an average breadth of not more than 50 miles. The coast plain north of the Godavery is a strip, extending along the foot of the solitary hills that border the state of Jeypore and run up thence to Cuttack. At Vizagapatam itself and for some miles to the south the coast is formed by a rocky ridge which runs parallel to the line of the ghauts; but in general the whole of this coast line, from the Paumben channel to the mouth of the Hooghly, is a low alluvial flat bordered by sand. Through the eastern plain flow to the sea all the rivers of the Presidency. The geology of this part of the peninsula offers much variety, and must be indicated in detail in its place. It consists eastwards in great part of the alluvial deposits brought down from the tableland. The heat on the Eastern or Coromandel Coast is very great during the early part of summer. The Carnatic also, especially the districts of Nellore, the two Arcots, and Chingleput, is noted for the great heat and dryness of the winds blowing through the gorges of the Eastern Ghauts from the sultry plains of the interior. The average height of the thermometer on the Coromandel Coast is 84°, as opposed to 78° on the Western Coast. A partial rainfall is obtained from the south-west monsoon, but for the most part the eastern coast is dependent on the north-east monsoon of the autumn months. This brings with it seldom more than 40 inches of rain during the year, against 150 or 210 inches on the opposite coast.

APPENDIX No. II.

METEOROLOGY OF THE PRESIDENCY.

Introduction.—The predominating feature of Indian meteorology is the semi-annual reversal of the wind-system, causing what are called the monsoon winds. Almost all the phenomena either tend towards or arise out of this constant fact. The Arabic word mausim means a season, and the Indian winds are seasonal; in contradistinction to the permanence of the north-east trades. If the equatorial regions of the earth were entirely covered with water, the trade-winds would blow constantly from the north-east in the north, and from the south-east in the south of the torrid zone, with a belt of variable winds and calms interposed; the whole system, following the sun's course, moving northward from December to June, and southward from June to December. But, especially in the eastern hemisphere, large tracts of land stretch into the tropics, and give rise to the extensive atmospheric disturbances for which those parts of the earth are so remarkable. During the summer half of the year, the north of Africa and the south of Asia are heated to higher degree than the Indian Ocean, while Australia and South Africa are much colder. As the heated air of Southern Asia expands and rises, and the colder air from the south flows in to supply its place, a general movement of the atmosphere of the Indian Ocean sets in towards the north, thus giving a southerly direction to the wind; but as the air comes from those parts of the globe which revolve quicker to those which revolve more slowly, an easterly direction will be communicated to the wind; and the combination of these two directions results in the south-west monsoon, which prevails there in summer. Since during winter South Asia is colder than the Indian Ocean, which again in its turn is colder than South Africa, a general motion of the atmosphere sets in towards the south and west. For a few weeks before the solstices and for three months afterwards the wind currents arising from the alternation of the Indian lands and seas are continuous across the equinoctial line; connecting the Indian wind-system with those of the Sunda islands and of Australia, and to a certain extent with the trade-winds of the south Indian Ocean. These are the monsoons as known to sailors. India however together with the seas immediately circumjacent is in reality an independent arena of atmospheric action. The peninsula, and the adjoining plains and plateau south of the Himalaya, together with the North Indian ocean, constitute a system, between the different parts of which there is a constant interchange of winds; and the salient features of the local meteorology depend on the contrasted conditions of the two land tracts just mentioned and of their several sub-divisions. The Asiatic monsoons consist not of one current flowing alternately to and from Central Asia, but of several currents each having its own land centre, and the centre which at opposite seasons of the year is alternately the source and goal of the Indian monsoons, lies to the south of the Himalayan chain. At two parts of the year, namely, in the months of March, April, and May, and again in the months of October and November, that is to say at the change of the monsoons, the interchange of air currents between land and sea is in a great measure restricted to India and its seas, and has but little concern with the region south of the equator. The existence of the Indian monsoons was made known to the Greeks during the Indian expeditions of Alexander, and by this knowledge a Greek pilot Hippalus was emboldened to sail across the open sea in the first few years of the Christian era to Mouziris near Mangalore. Monsoons, when compared with the trade-winds, play a more benefical and important part in the economy of the globe. Their greater velocity, and the periodical changes which take place in their direction, secure increased facility of commercial intercourse between different countries. But the full benefits following in their train are not seen unless they are considered in their relation to the rainfall of India. Indeed the fertility of the greater part of this region is entirely due to the monsoons; for if the north-east trade-wind prevailed there throughout the year, many extensive areas would only be barren saharas. The rainfall of Southern India depends entirely on the monsoons. The coast of Malabar has its rainy season during the south-west monsoon, which brings thither the vapours of the ocean. On the Coromandel coast, on the other hand, it is the north-east monsoon which brings the rain from the Bay of Bengal. The two coasts have therefore their seasons reversed, the dry season of the one corresponding with the wet season of the other. In April the north-east monsoon changes into the south-west; and in October the south-west into the north-east. These times depending on the course of the sun and consequently varying with the latitude, are called the breaking up of the monsoons; and are generally accompanied by variable winds, by intervals of calm, and by furious tempests and hurricanes. The period of transition between the north-easterly or winter monsoon and the south-westerly or summer monsoon is much longer than that of the opposite change, and presents marked characteristics of its own, which justify its being distinguished as a third or hot season. The transition from the south-west monsoon or the rains to the cold season is also marked by peculiar features, being the chief rainy season of the Carnatic.

2. *Temperature.*—The primary cause of the annual reversal of the monsoon winds is the variation of the quantity of solar heat received by the land surface of the country, according as the sun is in north or south declination. This difference is not directly shown by the sun thermometer, nor even by the actinometer; for both these instruments present the same surface normal to the sun's rays whatever be his altitude in the sky, and the excess of sun over shade temperatures is nearly the same at opposite seasons of the year provided the sky is equally clear. Such difference as may appear, when the solar intensities on equally clear days at midsummer and midwinter are compared, is due to the greater thickness of the atmosphere traversed by the solar rays, when his declination is low. The general law relative to the quantity of the sun's heat incident at any given moment on a given area, say a square foot of level surface, is that it is inversely as the square of the earth's distance from the sun; and disregarding the atmospheric absorption, directly as the sine of the sun's altitude. At places on the Tropic of Cancer, which passes about 60 miles north of Calcutta, the altitude of the sun is 90°, or vertical, at noon on the 21st June; and 43° 5' at noon on the 21st December. But heat falling on a water surface is largely used up in evaporating the water; and further, owing to the high specific heat of water, its temperature is raised but little as compared with that of a land surface. Hence a water surface changes its temperature but slowly, and it may be anticipated that the variations of temperature will coincide with those of the incident solar heat only on an extremely dry land surface; and also, it may be added, on one protected from foreign influences, such as marine currents and winds from cooler or hotter regions. On the plains of Northern India south of the mountain zone and again just to the north of that zone, these conditions are fulfilled to a remarkable degree; on the mountain zone itself alone the snows forming a disturbing element. Accordingly it is found that the highest mean temperature prevailing in any part of India, during the months of June, July, and August, is that of the Punjaub. In this then lies the primary cause of the mid-year monsoon wind; that is to say in the fact that the northern part of India is included in that zone of the earth's surface, which during the middle months receives the greatest proportion of the sun's heat; and which being at the same time a land surface acquires therefore a proportionally high temperature.

3. The region of highest temperature has a distinct northward progression during the period in which the sun moves in northern declination between March and June. From the records of temperature, it appears that in March the highest average temperature in the peninsula is in the latitude of 20° or that of Ganjam; and in May between 24° and 26°. In March the greatest quantity of the solar heat is received on the equator, in April between latitudes 10° and 5°, and in May between latitudes 25° and 30°. In the first two months therefore the zone of highest temperature on the land is to the north of the zone of greatest insolation: while in May these two zones nearly coincide, the latter being perhaps slightly in advance; and thenceforth the northward advance of the two zones takes place 'pari passu.' The accelerated advance of the zone of temperature in the two earlier months (and indeed, in January and February, since the temperature of the peninsula begins to rise a fortnight or three weeks after the winter solstice), is due to the greater thermal receptivity

of the land. It must be added that the isothermal chart of India shows that the lines of equal temperature at this season are concentric curves, following almost exactly the contour of the peninsula and of the mountain belt; so that while the progression is northward, the base of the area is not calculable by linear latitudinal measurement. This character of dependence on contour is common to all the hot weather months, and lasts till the setting in of the rains.

4. As soon as the rains set in in June and July, the temperature falls over part of the peninsula, remaining high only in those localities where from different causes the rainfall is scanty or wanting. About the end of September the loss of heat by the nocturnal cooling of the earth's surface and of the atmosphere resting on it has so far gained on the antagonistic influence of the diurnal heating, that the temperature of the Punjaub begins to fall below that of other parts of India. Meanwhile however the eastern part of this Presidency has received but little rain during the mid-year months, and maintains a high temperature; which is further favored by the sun's becoming a second time vertical over the Carnatic on his return from the north during the month of August. In the latter part of October, and in November and December, the Carnatic has a higher temperature than any other part of India. From these causes arises the deflection of the south-west monsoon towards the Madras eastern coasts; for it will presently be seen that as a general rule a high temperature determines a low atmospheric pressure, and the winds tend towards such regions of low pressure in virtue of mechanical laws.

5. During the cold weather months the temperature depends chiefly on the latitude, that is to say on the obliquity with which the sun's rays fall on the earth's surface. Hence at this season the course of the isothermal lines is more or less parallel to the lines of latitude. Less so however in the peninsula than in Northern India; since the distribution of temperature is affected unequally in the former, partly by the course of the cooler currents from the north, partly by differences of radiation, the high dry plateau of Mysore and the hill country of the Western Ghauts being cooler than the plains of the Carnatic and the sea that washes the western shores.

6. As regards the varied conditions which affect temperature, it may be said that on the whole the temperature of India during the dry seasons throughout the year is determined by the direct action of the sun; that is to say by the changing equilibrium of the heat gained from direct insolation and that lost by radiation into space. Of secondary causes affecting the temperature, the most important are evaporation and obscuration by cloud. Wind direction, regarded as a condition directly influencing temperature, occupies an important place at some parts of the coastline where the land and sea breezes differ greatly in temperature. The influence of evaporation in mitigating the temperature of the sea and the maritime belt of the peninsula is a familiar fact. In conjunction with cloud obscuration it is equally important in the interior of the country, more especially in the rainy season. But the effect of the evaporation of rainfall is perhaps most immediately manifested in the hot season, when a heavy shower is always followed by a day or two of reduced temperature. Throughout the rainy season the course of the isotherms is mainly determined by the quantity of the rainfall and the directions of the rain-bearing winds; the former running more or less at right angles to the latter, and indicating a gradual increase of temperature from the west to the east coast.

7. The range of temperature, both in the annual and diurnal period, varies very greatly in different localities. The Punjaub in the north is the seat of the greatest variation; and Ceylon in the south that of the least range. The Carnatic occupies a position about midway between these two extremes. The absolute annual range in the Punjaub sometimes exceeds 100°, while that at Galle may be as low as 16°. The following are the figures for the stations of the Madras Meteorological Department for the year 1882:—

Stations.	Annual range.
Bangalore	48·0
Bellary	57·6
Cochin	28·7
Coimbatore	28·5
Madras	48·9
Madura	30·6
Mangalore	32·4
Masulipatam	28·3
Mercara	41·2
Negapatam	37·6
Salem	31·9
Secunderabad	34·7
Trichinopoly	29·4
Wellington	43·2

The average diurnal range in the Punjaub may be taken at about 30° on the mean of the year, and in April 40°; while at Galle the annual average is only 6¼° and the greatest monthly average not 9°. The following figures show the mean daily range for the same Madras stations for 1883:—

Stations.	Daily range. DEG.
Bangalore	20·9
Bellary	22·8
Cochin	12·0
Coimbatore	19·8
Kurnool	20·0
Madras	15·8
Madura	21·0
Mangalore	12·6
Masulipatam	16·0
Mercara	14·8
Negapatam	14·1
Salem	22·2
Secunderabad	20·7
Trichinopoly	19·7
Wellington	16·6

8. The mean actual temperature at different stations of this Presidency taken by a recent average has been recorded in a foot-note to the article on Meteorology. The following are the figures of the stations of the Madras Meteorological Department for the different months of 1882:—

Stations.	Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Bangalore ...	12—13	67·6	72·0	76·8	80·1	78·4	74·1	72·2	72·0	71·9	72·0	70·0	67·5	72·9
Bellary	12—13	73·4	78·7	85·4	89·1	87·9	83·0	80·7	80·8	79·7	78·9	75·5	72·8	80·5
Cochin	11—12	78·7	80·2	82·5	83·8	81·7	78·2	77·3	77·7	78·0	78·9	79·5	78·9	79·6
Coimbatore ...	13	73·8	77·9	81·2	83·2	81·2	78·0	76·7	76·9	77·1	77·0	75·8	73·8	77·6
Madras	23	75·8	77·4	81·0	85·2	87·4	87·7	85·6	84·5	84·1	81·4	78·5	76·2	82·1
Madura	13	77·1	79·2	82·8	85·7	85·6	85·0	84·3	83·4	82·9	80·8	78·9	77·2	81·9
Mangalore ...	3	?	?	?	83·7	82·6	77·8	76·6	76·4	77·0	78·5	78·8	77·4	?
Masulipatam ...	12—13	74·7	77·0	80·9	84·9	87·8	87·3	84·1	83·6	82·5	81·1	77·8	74·6	81·4
Mercara ...	3	?	?	?	71·9	70·5	65·1	63·6	64·1	64·3	66·1	66·2	64·8	?
Negapatam ...	12—13	76·6	78·2	81·8	84·9	85·9	85·6	84·3	83·1	82·5	81·1	78·7	76·5	81·6
Salem	12—13	75·7	79·1	83·8	86·7	85·2	82·7	81·2	80·5	80·2	79·2	77·2	75·2	80·6
Secunderabad ...	12—13	70·6	75·7	82·2	87·1	88·5	82·0	77·2	77·2	76·5	76·1	72·2	69·3	77·9
Trichinopoly ...	12—13	75·8	78·6	83·2	87·1	87·6	86·2	85·1	83·7	82·8	80·6	78·0	75·7	82·0
Wellington ...	9—11	54·8	58·4	62·7	65·1	65·5	63·3	62·5	62·3	61·9	60·6	58·4	55·6	60·9

9. *Barometric pressure.*—It follows from elementary mechanical laws that the movements of the atmosphere and the pressure of its different parts bear to each other an alternative relation of cause and effect. Any difference of pressures in the same horizontal stratum of the atmosphere tends to set a current in motion from the place of the higher to that of the lower pressure. And so long as such difference of pressure is maintained the movement of the air will be accelerated until the resistances arising from friction, the renewal of momentum, &c., exactly counterbalance the effective difference of pressure; when the motion becomes uniform. The principal cause of those variations of local pressure that determine the course of the winds are the variations of temperature above described. The immediate effect of a rising temperature on a mass of confined air is to raise its pressure. But the increased tension is thereafter speedily relieved by expansion; and the heated air thus becoming less dense, its pressure is again brought into equilibrium with that of the surrounding atmosphere. The following figures show the mean annual barometric pressure of the different meteorological stations for 1883:—

	Barometric pressure. INCHES.
Bangalore	26·918
Bellary	28·368
Cochin	29·888
Coimbatore	28·523
Kurnool	28·889
Madras	29·841
Madura	29·397
Mangalore	29·840
Masulipatam	29·807
Mercara	26·232
Negapatam	29·846
Salem	28·936
Secunderabad	28·042
Trichinopoly	29·615
Wellington	24·224

10. *Effect of the above-named causes in producing the Indian wind-system.*—If there is a land surface and a sea surface contiguous to it, and the same amount of solar heat is expended on both, the air over the land surface when simply heated will have its tension raised more than seven times as much as that over the sea surface by the simple evaporation of water. The effect in both cases being chiefly restricted to the lowest strata of the air, the increased tension will be relieved as above stated by expansion and the lifting of the superincumbent mass. If before being heated the atmosphere of the whole area is in a state of equilibrium, so that the isobaric planes are horizontal, the result of the above process will be that these isobaric planes will be tilted up over the land. In other words a gradient will be produced, with a head of pressure over the land; and a current of air will flow outwards down the gradient towards the sea. By this process a quantity of air will be removed from the atmosphere over the land and will begin to accumulate over the sea; and, at the level of the land and sea-surface, the static pressure or weight of the column at sea will become greater than that on land. A lower current of air will then set in the reverse direction to the upper and will be felt as a sea-breeze. At night the conditions will be reversed. These daily land and sea breezes are felt on all or nearly all parts of the Madras coast except when the monsoons are at their height; and even then, if not blowing directly at right angles to the coast, the wind frequently varies through a point or two, tending towards the land in the afternoon and away from it in the early morning.

11. The disturbance of the equilibrium of pressure just described as giving rise to land and sea breezes is a simple illustration of what are called convection currents, regulating the greater part of the Indian wind-system. But in the larger system, the alternations need not necessarily be between land and sea. The unequal temperatures in different localities cause upward expansion, disturbance of the level of the isobaric planes, and consequent streams of air in one direction in the upper levels of the atmosphere and in the opposite direction in the lower. On the largest scale this is the case of the monsoons. At the two extremities of the year, during the prevalence of the north-east monsoon, there is a descending air column in the Upper Punjaub and more or less over the whole of Northern India. From these tracts, the surface wind-currents flow away to the southward. On the other hand when the south-west monsoon is at its height the descending column is over Southern India. The terms south-west and north-east monsoons, originally instituted by sailors, have been objected to as regards the Indian continent generally on account of the large disturbance of direction brought about by local causes. They however indicate the phenomena with sufficient closeness for Southern India.

12. *South-west monsoon wind.*—The movement from the south-west becomes as a whole noticeable in April, attains its maximum in July soon after the summer solstice, and ceases about October. On the Malabar coast the south-west monsoon usually sets in late in May; frequently commencing with sudden winds from the south-east, veering to south and south-west, at which last point the wind becomes fixed. A heavy swell out at sea is the herald on this coast of the south-west monsoon. The date of the setting in of the monsoon wind grows later with north latitude. There is frequently a difference of 15 or 20 days between the setting in at Cape Comorin and Bombay. Having begun on the west coast in May, the south-west wind establishes itself by successive later stages all across the peninsula. On the Coromandel coast, the arrival of the south-west monsoon is preluded by a southerly variation of the ordinary west or east land and sea-breezes. This is observable as early as March. The sea-breezes then draw to the south-east. In April the sea-breeze begins from the south-south-east about noon or earlier, and continues till 9 or 10 p.m., or at times during the night. After midnight the wind frequently veers to south-south-west and south-west, but seldom blows directly from the land until May. The alternation of land and sea breezes then becomes distinct and regular. The south-west monsoon as a wind blowing steadily from that quarter affects the east coast but little, its strength being exhausted. As the season advances, the south-west monsoon blows with more and more north in it. By August it has much abated, and on the west coast is felt as a west or even north-west wind. The south-west monsoon has a greater average velocity depth and volume than those of the north-east monsoon next to be described. These are questions however which are largely affected by local influences. During the height of the south-west monsoon, there is a tract lying between the equator and 9° north latitude and extending nearly from Ceylon to Socotra, in which the winds are light and the sea smooth. This is known to navigators as the soft place in the monsoon; and is taken advantage of, more especially by homeward bound steamers, proceeding westward towards the entrance of the Red sea. To the north of this, the monsoon blows in the usual direction with great force. It is not yet known what is the physical explanation of this phenomenon.

13. *North-east monsoon wind.*—This on the Coromandel coast begins about the last half of the month of October. It usually opens with a severe storm; coming from the north-north-west or from the north, and veering afterwards to north-east and east. At Coringa the storm sometimes begins at north-east, which shows that the centre of the revolving storm bears south-east from that place. In the south-east of the Bay of Bengal out at sea, it begins often from the south-west or west, showing that the centre is to north-west and north. These storms are most destructive, and the cyclones of the coast will be hereafter mentioned. In November and December the wind of the Coromandel coast blows mostly from north-north-east. In the morning it frequently veers north-north-west, inclining a little from the land. In the afternoon it inclines from seaward. In January the winds on the east coast draw to east-north-east during the day and blow along shore from the north or incline a little from the land in the morning. But sometimes in December and January the north-east winds continue for three or four days together without much variation in direction or force. The north-east wind is felt but slightly in the interior and on the west coast. In February the north-east monsoon ends, or is much interrupted by southerly breezes. Early in March the south-east or 'along-shore' wind of the Coromandel coast establishes itself. This occurs about noon in each day.

14. *Wind statistics for stations.*—The following are statistics for daily velocity of wind at stations of the Madras Meteorological Department for 1883:—

	Daily velocity of wind. MILES.
Bangalore	172
Bellary	158
Cochin	...
Coimbatore	93
Kurnool	...
Madras	178
Madura	109
Mangalore	78
Masulipatam	187

	Daily velocity of wind.
	MILES.
Mercara	... 150
Negapatam	... 107
Salem	... 90
Secunderabad	... 135
Trichinopoly	... 83
Wellington	... 87

15. *Humidity.*—The atmosphere sets up convection currents, and thereby causes winds as just seen. It tempers also the extremes both of heat and cold; it transports water to elevations, whence it can flow down over the land, rendering it habitable; and it continually abrades the land surface. All these effects depend on the fact that in the act of evaporation the atmosphere locks up a store of potential energy, its so-called latent heat, which it transports without loss or waste to distant regions; and then on the lowering of its temperature again sets it free as heat, while the vapour returns to a liquid or solid state. Evaporation or the conversion of water into vapour goes on at all temperatures, wherever a moist surface is exposed to the action of non-saturated air; not only from the sea and other expanses of salt or fresh water, but also from the leaves of grass and trees, and from the ground through which it rises drawn up by capillary attraction from the damp substrata. In certain arid states of the atmosphere, this is even effected from organic and non-organic substances; which appear dry to the touch, but which nevertheless though the air may be far below saturation contain certain small quantities of absorbed moisture. The ocean is the principal source of atmospheric vapour. But a large part of the rain that falls on a land surface passes again at once into the atmosphere; and in certain cases tracts artificially irrigated may furnish sufficient vapour to yield an occasional shower of rain, where there is no other source of supply. The quantity of vapour in the air at any place is mainly dependent on its distance from the sea and upon the direction of the wind; but also partly on the temperature, since the higher the temperature the greater the quantity of vapour that can exist in a given volume. As a general rule the interior has a smaller quantity of vapour in the air than places situated on and near the coastline; but if the prevailing direction of the wind is from the land, and that land be dry and heated, places situated almost on the coastline may have an extremely dry atmosphere. Such is the case at the town of Madras during the prevalence of the land winds. The most persistently humid locality in the Presidency is South Malabar; this is near the seat of the highest mean yearly temperature, and is at the same time a sea-coast with winds prevailing from the sea. It need not be said that humidity varies very much with the season of the year, especially in the interior. Over the whole of India, the mid-year maximum of relative humidity depends on the monsoon wind of that season. This sweeps across the peninsula from the Arabian sea. It thus brings vapour most copiously to the west coast during its prevalence. A considerable range of hills runs parallel with the coast at no great distance inland, and as these hills cause a great condensation of vapour, and at the same time in some degree divert the course of the currents, the narrow coast plain and the western slopes of the hills form a belt of extreme humidity, and the countries beyond the hills to the eastward are much drier. The plains along the east coast of the peninsula and the plateau of the interior are extremely dry during the early months of the year. Since the temperature is high, while the sea winds of the Bay of Bengal blow along the coast and parallel to it, and even as diurnal winds penetrate but a short distance from the sea; while on the other hand those from the Arabian sea are stopped by the Western Ghauts. The most humid season of this part of the peninsula is the end of the south-west monsoon; when the winds from the Bay of Bengal re-curve and become easterly, being drawn towards the region of low pressure in the Carnatic, and forming the north-east monsoon. What is here said of humidity is applicable to a great extent to cloud formation, which is a phenomenon of the upper stratum of the atmosphere. From what has been said of the tendency of vapour to diffuse upwards, and of the effect of the decreasing temperature, which compels condensation before the condition of equilibrium can be attained, it follows that for a certain distance above the earth's surface the relative humidity of the air will in general increase with the increasing elevation. The observations made in balloon ascents show that this is the case; and the same fact is further illustrated by the higher humidity of the atmosphere at the hill stations of the Presidency, as compared with those on the plains. But this increase does not go on indefinitely. At a certain elevation, which varies with the absolute humidity of the air and also with the temperature, saturation is reached; a part of the vapour is then condensed as cloud, in which state diffusion is stayed until the cloud is evaporated under the sun's rays. The following are statistics of vapour tension and relative humidity for the Madras meteorological stations for 1883 :—

Stations.	Vapour tension.	Relative humidity.
	INCH.	CENTS.
Bangalore	·524	66
Bellary	·527	52
Cochin	·815	81
Coimbatore	·641	68
Kurnool	·755	73
Madras	·786	75
Madura	·712	68
Mangalore	·794	80
Masulipatam	·820	77
Mercara	·552	85
Negapatam	·749	71
Salem	·702	71
Secunderabad	·535	58
Trichinopoly	·698	64
Wellington	·396	73

16. *Rainfall.*—To a certain extent the variation of the rainfall follows the same general laws as the variation of the relative humidity of the air and of cloud. But rainfall is influenced by other local circumstances, such as the form of the ground; and its copiousness depends not only on the atmosphere having a high prevalent humidity, but also on the volume of the vapour-loaded air which reaches a place, and having there condensed and precipitated its vapour passes on to other regions. The velocity of the saturated current and the amount of cooling it undergoes over a given place are therefore important factors in the resulting product. The seat of most abundant rainfall in the whole of the Indian continent are the Western Ghauts. Here, as seen, a line of hills runs across the path of the vapour-bearing summer monsoon, forcing the air to rise to some extent, and therefore to undergo dynamic cooling. The heaviest rain is on the escarpment of the ghauts, where they rise abruptly from the Concan. At Mahableshwar in the Bombay Presidency it is not less than 260 inches, and at Travancore, it is about the same amount. But on the coastline it is less. Mangalore has only 116 inches. The Malabar coast receives its rainfall during the south-west monsoon principally; but the further south the tract is, the less decided is the distinction of the seasons in this respect. The Deccan and Mysore plateau receives its principal rainfall from the west coast; but the air having to surmount the escarpment of the ghauts before reaching it, that portion which lies immediately to the east of the ghauts has a very moderate rainfall, and the increase beyond is only gradual. Bangalore has about 34 and Bellary only 17·5 inches. The rains of the summer monsoon are not much felt on the east coast of the peninsula, south of the mouths of the Godavery and Kistna. At Madras, the average fall from January to the end of May is 4½ inches, from June to September inclusive 15 inches; and it has been stated that this is in October and November more especially, when the southerly monsoon has ceased to blow in Northern India, but re-curves towards the region of low pressure in the Carnatic, that this part of India receives its chief rainfall. The average of the two months is not less than 24 inches, and about 5 inches fall in December. At Vizagapatam the summer and early autumn rainfall is greater than at Madras, viz., 23 inches; and that of October or 10·74 inches is equal to it; but that of November is considerably less, viz., 2 inches only. In all the eastern coast districts showers and small storms from the north-west occur occasionally in the spring or hot weather months. A tabulation of rains statistics for the different districts throughout the year as deduced from a recent average has already been given in a foot-note to the article on Meteorology.

17. *Periods of deficient rainfall.*—It has been ascertained that as a general rule the quantity of the rain that falls on the globe varies proportionally with the abundance of the sun-spots; the greatest rainfall occurring about the period of the sun-spot maximum, and vice versâ. It has also been deduced from old records that on an average years of abundant sun-spots are more fruitful and characterised by lower prices of cereal produce. In Ceylon this cyclical variation of the rainfall and of cereal abundance appears to be sufficiently obvious to have become a subject of popular observation; and facts have been adduced which show that in Southern India there is a marked

tendency to the recurrence of periods of scarcity about the time of the minimum sun-spots. It may be expected that any cyclical variation of the kind will be more distinctly manifest in the weather and productiveness of lands in the tropical zone, where the action of the sun is direct, and the seasonal changes regular, than in extra-tropical regions, where the non-periodic vicissitudes of the climate are great, and depend largely on the conditions that prevail in more or less remote parts of the globe. Madras therefore shows the cyclical variations of the rainfall far more distinctly than most other places. In Northern India it is understood that the coincidence is indeterminate, and in the rainfall registers of Calcutta it is not recognisable. It is probable also that places on the coast-line are more favorably situated for affording evidence of a cyclical variation of rainfall than those in the interior of the country, where great variations in the quantity of the rain are more dependent on variations in the local distribution of pressure. The theory of this periodicity is that the cyclical variation of rainfall depends on the amount of evaporation, which is least when the solar disc is most free from spots, and when its radiation is least intense.

18. *Cyclones.*—Of sea-storms the most important round the coast of the Presidency is the cyclone, which differs from a tornado chiefly by its greater size and duration. Both cyclone and tornado consist of an atmospheric vortex, a whirlpool of air pouring upwards. The winds of the lower atmosphere blow from all quarters, more or less obliquely towards it; and in the vortex itself become more tangential and at the same time more violent, the greatest strength of the storm being near its centre. But in the centre there is an absolute calm; or at the utmost light variable winds. This calm region, which is circular or nearly circular in form, is sometimes as much as 15 or 20 miles in diameter, at other times not half that extent. On the opposite borders of the calm region, the wind directions are from exactly opposite quarters. The primary cause of cyclone formation is the production and ascent of a large quantity of vapour, which is condensed with the liberation of its latent heat over the place of its production, instead of being carried away to some distant region; and the consequent local lowering of the atmospheric pressure, causing or tending to cause an indraught of air towards the place of minimum pressure. The storm-wave which probably accompanies every cyclone is often far more destructive especially when it is piled up on a low coast with shelving foreshore, and arrives there at the time of flood during the height of the spring-tides. The reduction of atmospheric pressure at the centre of the storm, amounting sometimes to two barometric inches, would of necessity cause a rise of the mean level of the sea, amounting to about 13 inches for each barometric inch of diminished pressure; and in addition to this the winds, in virtue of their friction on the sea surface and the spiral incurvature of their course, must tend to pile up a head of water in the central part of the vortex. Its full effects are most felt on the right of the central track of the cyclone, for the direction of the wind there coincides with the advance of the wave; whereas, on the left of the track, the wind generally opposes its advance. The cumulative effects of such cyclonic waves have caused the greatest national catastrophes on record. In May 1787, at Coringa, near the mouth of the Godavery, a storm-wave swept away 20,000 souls. The lowest authentic pressure recorded at sea has been 27·58 inches. The lowest at any land station has been 28·083 inches. The official catalogue shows 115 cyclones in the Bay of Bengal since 1737, the majority of which have occurred at the change of monsoons, and especially at the close of the summer monsoon. Against 21 in May and 10 in June there have been 31 in October and 18 in November. None are recorded as having occurred in February, which is the month of their greatest frequency in the South Indian Ocean. In the China seas, where the sea is not limited to latitudes below 22°, the whole season of the summer monsoon is characterised by frequent cyclones, and the month of their greatest frequency appears to be September. Strictly speaking, the whole of the summer monsoon is equally a cyclone season in India; but the cyclones then, being chiefly formed on land, do not attain to any degree of violence. Cyclones never occur within 6° or 7° of the equator in either hemisphere. The Andaman and Nicobar islands, as the region of lowest pressure circumscribed by higher pressures, are the cradle of some of the most destructive storms that have ravaged the coasts of Southern India. That which was formed in the neighbourhood of the Andamans about the 22nd October 1842 travelled thence to Pondicherry, crossed the peninsula, passed out at the Palghaut gap; and was afterwards traced to east longitude 60° on the 1st November, having completed a course of 2,000 miles and lasted nine days.

APPENDIX No. III.

GEOLOGY OF THE PRESIDENCY.

INTRODUCTION.—The geology of the peninsular portion of India offers several points of discrepancy as compared with that of Europe or Asia, or indeed of any other region in the world which has supplied the data for the ordinary classifications of the science. In the first place several of the Indian peninsular formations extend over hundreds of thousands of square miles. In the second place the fossils that are found point to the conclusion that the peninsula is a distinct country; probably that it formed at one time a portion of a continent stretching to South Africa and separated from India by the breadth at least of what is now the Indo-Gangetic plain. Thirdly, there is a singular absence of any evidence of that disturbance in late geological times which marks the rest of Asia. The principal mountain chains of the southern part at any rate of the peninsula are not coincident with axes of geological disturbance or elevation. They are merely plateaux, or portions of plateaux, which have escaped denudation. The peninsula is a tableland worn away by subaërial denudation; and to a minor extent on its margins by the sea. The low valleys are denudation hollows cut by rain and rivers out of the original plateau. The exceptions, where the strike and dip of the rocks appear to have affected the contour of the country, are among the metamorphic and transition formations. Fourthly, unlike the rest of Asia and Europe, there is in the peninsular area an entire absence of marine representatives of the palæozoic and lower mesozoic formations. Over the whole area there is scarcely a marine deposit of older date than the cretaceous epoch, except perhaps a few outcrops along the east coast, near Madras, Ongole, and Ellore. This absence of marine fossils is not due to alteration of the strata nor to the deficiency of rocks suited for the preservation of organic remains.

2. The European divisions of the chronological sequence of geology are ill-adapted for the classification of the Indian beds. Even the main terms of Azoic, Palæozoic, Mesozoic, and Tertiary or Cænozoic can with difficulty be made applicable. The following is a scheme, partly chronological, partly formative, and partly local; which may serve as a guide to the study of the subject for this Presidency:—

Classification with regard to life.	Systems or Series.	Sub-divisions.	Representatives.
......	Recent and Post-Tertiary.	......	Blown sands; red sand hills of Tinnevelly; soil generally; kankar, modern alluvia, fluviatile, estuarine, and marine; marine sandstones, limestones and coral reefs of Tinnevelly and Madura coasts; low level laterite; cave deposits.
Cænozoic.	Tertiary ...	......	Sandstones, clays and lignites of Travancore and Rutnagherry. Cuddalore sandstones.
	? ...	......	High level laterite (iron clay) of the Southern Deccan.
Mesozoic.	Upper Cretaceous.	......	Trap-flows and inter-trappeans of Rajahmundry, infra-trappean of Rajahmundry. { Ariyaloor, Trichinopoly, Ootatoor. } Groups of marine origin.
	Gondwana system.	Upper ...	Plant-beds of East Coast Ootatoor. Suttivaid. Shreepermatore. { Pauvooloor. Vemavaram. Boodavauda. } Tripatty, Raghavapooram, Gollapully.
Palæozoic.		Lower ...	Baraukar group. { Of Godavery valley and south-east Deccan.
Azoic ...	Vindhyan system	Upper ...	Not represented.
		Lower ...	Kurnool series.
	Transition or Sub-Metamorphic.	Upper ...	Cuddapah series.
		Lower ...	Not represented.
	Metamorphic or Gneissic.	......	Gneiss, granitoid and schistose rocks with associated traps, granite, and quartz veins.

3. AZOIC ROCKS.—The peninsular gneissic and transition series are ancient sedimentary beds, although no fossils have yet been found in them. Whether they were deposited in the sea or in rivers and lakes cannot be determined. The rocks may have been the scene of organic life, but its traces in that case have been obliterated by the alteration which they have undergone. Further, it is always possible that an azoic formation may be itself exclusively a land area, and contemporary with marine life elsewhere. This possibility is notably the case in what will be described hereafter as the latest of the Azoic Indian rocks, or the Vindhyan system.

4. *Metamorphic or Gneissic.*—The main or eastern gneiss, with a mean breadth of 350 miles, extends up the peninsula in a straight line for 1,400 miles, from Cape Comorin to Colgong on the Ganges, with the exception of a narrow strip of overlying strata in the Godavery basin, connecting the eastern seaboard with the spread of the Deccan trap. After a gap of 150 miles, through which the Ganges and Brahmapootra find their way to the sea, is reached the northmost outlier of the same natural group; in the Assam mountains. The varied surface configuration of this vast formation is due to denudation: such as the highlands of the east Jeypore watershed between the Mahanuddy and Godavery; the gneissic plateau of Hyderabad, and the loftier masses of Mysore; the Shevaroys and other five mountain masses lying east of the Mysore scarp; the Neilgherries culminating in Dodabetta which are separated from the Pulneys and Anamullays of Travancore by the Palghaut gap. Although the metamorphic rocks are frequently granitoid, true granite only occurs among them in the form of veins; no large areas are known. The ordinary peninsular gneiss is grey or greyish pink, the prevailing felspars being orthoclase (monoclinic in crystallising) and oligoclase (triclinic), while there is more hornblende than mica. Two principal varieties of gneiss are met with, the granitoid and the schistose; which occur in great parallel bands running through the country and standing in relation to each other as the remains of great foldings which largely influenced the final shape assumed by the southern part of the peninsula. A very remarkable degree of parallelism subsists between the great eastern foldings and the East Coast, and similarly the Western Coast runs through great part of its course parallel with the great gneissic bands in the Western Ghauts. The inter-relations

of these bands have yet to be made out in great measure, and the study of them, when complete, will doubtless lead to the division of the present great gneissic series into three or more minor series. The following are remarks on the tracts in the Presidency where the gneissic formations have received special attention from geologists. The relations of the granitoid and schistose gneisses have been most studied in the Bellary, Anantapore, Kistna and Nellore Districts, and there the schistose rocks appear generally to rest upon the granitoid series, which must therefore be considered the older.

5. In the Bellary District seven great bands have been distinguished up to the present, of which three are schistose and four granitoid, all running in a more or less south-easterly direction. These bands are continued northward into the South Mahratta country and the Raichore Doab, and southward into Mysore and the Anantapore District. The granitoid bands consist of massive, often porphyritic, granite gneiss, and the schistose bands of hornblendic, chloritic, argillaceous and micaceous schists and of hæmatite rock. Beds of contemporaneous trap are intercalated here and there. Western Kurnool is occupied, up to the scarp of the Cuddapah basin, by a band of granitoid gneiss traversed by many huge veins or reefs of brecciated quartz rock.

6. East of the Cuddapah basin in the Kistna District and northern part of Nellore District four bands are found, two of granitoid and two of schistose gneiss. The schists here are principally micaceous and chloritic with numerous bands of quartzite in the western and of magnetite in the eastern band. At Bezwada the eastern schistose band is largely composed of a very remarkable form of highly felspathic gneiss in which the variety of felspar, known as murchisonite, predominates. These beds stretch away through Rajahmundry District into the south of Vizagapatam. They are quite peculiar to this part of the peninsula. In the central and southern parts of Nellore the two schistose bands unite and occupy nearly all the low country. In the central part of the district the schists are cupriferous; the ore, an earthy form of malachite, occurring in pockets (not in lodes) which renders a mining industry extremely precarious. These bands continue southward into Chingleput and eastward North Arcot, but are less well marked and so much covered up by younger formations that it is not possible at present to correlate them with the bands south of the Palaur river, which are less well known.

7. The south-western part of Cuddapah and western half of North Arcot are occupied by a great granitoid band which narrows down into Salem and on to the Cauvery valley, beyond which it has not yet been followed. A broad band of well-bedded massive gneisses (which must be reckoned to the schistose variety) occupies the south-east of North Arcot, the east of Salem, the west of South Arcot, and the north-western half of Trichinopoly. It is this band of massive, mostly hornblendic, gneisses which includes the great Salem series of magnetite beds (not lodes), but true beds of banded quartz and magnetite so celebrated for their rich and high-class ores. With the aid of the very conspicuous outcrops formed by this rock, several great features of contortion have been made out, proving the strata to be frequently repeated at the surface. In the centre of South Arcot, a considerable area is occupied by granitoid gneiss rocks of massive type, yet showing in many places undoubted stratification, and occurring in great continuous ridges which apparently form anticlinal and synclinal folds. The rock is composed of quartz and pink and white felspar. It frequently contains blocks, both angular and rounded, of hornblende schist. Its relations to the surrounding schistose gneisses are obscure, but in all probability it underlies them, and may be correlated with the granite gneiss of Bellary and North Arcot.

8. South of Trichinopoly is another granitoid area extending southward into Madura District. Associated with the granitoid gneiss in the south are singular beds of highly granular quartz rock which form long, low and generally naked ridges of pale reddish or creamy white color, which are numerous in the neighbourhood of both Madura and Palamcottah. They extend also into Travancore. These quartz rocks have not been met with in any other part of the Madras Presidency. They are composed of granular, transparent quartz, with grains of felspar (generally in a decomposed state) and with grains and spangles of red hæmatite scattered through the quartzose matrix. Very massive beds of quartzo-felspathic gneiss of whitish or pinkish color and highly charged with minute garnets form the south of Tinnevelly and eastern flanks of the ghauts, and near Cape Comorin (which consists of this rock), they curve round into South Travancore.

9. The gneisses forming North Travancore and Anamullay and the Pulney mountains and the northern and southern part of Coimbatore District are almost unknown The central part of Coimbatore District is formed of schistose gneiss, much of which is micaceous.

10. In the Neilgherries massive, obscurely foliated gneiss prevails; but is of a very type from the massive gneiss of the Ceded Districts which is granitoid and copiously felspathic. On the Neilgherry plateau it is in the very hornblendic variety, such as prevails over the northern portion, that the foliation is best marked. The rock is hard, tough, and black, breaking with an even fracture and consisting of an intimate mixture of quartz and hornblende with some garnets. It was mistaken by early observers for syenite and greenstone. A similar rock, but a variable proportion of felspar, is very common in the central part of the hills. There are also several strong courses of a quartzo-felspathic gneiss which has been taken for graphic granite. Locally this gneiss also contains garnets in great quantity.

11. To the west and north-west of the Neilgherries the gneisses of Malabar and South Canara have not been surveyed. In South Wynaud there are four belts of gneiss; the quartzo-hornblendic gneiss of the north face of the Neilgherries and north of it (below) the Devalah band of highly felspathic gneiss with two minor belts of chloritic gneiss and then north of this the quartzose and ferruginous bands of the Murpanmoody range. The auriferous quartz reefs are most developed in the Devalah band. Their lie is peculiar; the strike is north-north-west corresponding to that of the gneiss in the country to the north and at right angles to the rocks in which they occur. Yet they generally have a low dip from 10° to 30°, always easterly. The three northern belts of the Wynaud gneiss may provisionally be regarded as members of a great band of schistose gneiss which, appearing from under the southern edge of the lower Vindhyan Kaladgy basin, runs across Dharwar District forming the Dumbal range of hills in which lies the Kappatgode gold-field. Thence it continues down through the west of Bellary District where it forms the Hurpanhully hills, runs on south-south-east right through the Mysore country to near Mysore city where it trends south-west and enters the Wynaud. It is a noteworthy fact that all the important auriferous localities in South India are situated in tracts consisting of the schistose gneiss. The Wynaud and Kappatgode gold-fields have already been named. Two minor auriferous tracts are reported in the same great schist band, the one near Chicknaikennully in Central Mysore, the other near Hurpanhully in Bellary District. The next great schist band lying west of the Wynaud Kappatgode band is auriferous at several places north of Dharwar and in the Honnally gold-field in North-west Mysore. The Colaur gold-field also is in one of these schist bands, the most easterly known to be auriferous.

12. Quartz veins are common enough in the granitoid rocks and the eastern schistose bands, but, even if at all auriferous, they are not enough so to yield by weathering a sufficiency of alluvial gold to have attracted any notice. Crystalline limestones occur at various places among the schistose gneisses, *e.g.*, near Coimbatore, in the Cauvery valley, both north of Caroor and to the south of Madura. The most important group is that south of Caroor. Of intrusive igneous rocks, granite veins are not, as a rule, very conspicuous even where common, except in a tract of country on the left bank of the Cauvery in Trichinopoly District, where there is a network of veins running generally in the planes of foliation of a shattered band of highly foliated hornblendic gneiss which is frequently twisted and contorted in every direction. This belt of granitic intrusion, which runs nearly east and west along the line of an anticlinal axis, is from 4 to 6 miles wide. It has been traced from near Trichinopoly into Coimbatore District near Caroor for a distance of over 60 miles. Shunkerrydroog hill in Western Salem also shows some interesting and conspicuous granite veins. Granite veins both large and small are common in many parts of the granite gneiss areas, but it is a moot point whether they should not be regarded as products of excessive local metamorphism rather than intrusions. As a rule, they do not form conspicuous features in the landscape. Very remarkable features of the landscape in Cuddapah, Anantapore, Kurnool, and Bellary are the great veins of brecciated quartz which have been erupted through the gneiss. They often form the backbone of ridges many hundred feet high, which may be traced for distances of 20 or 30 miles or more in many cases. They are often associated with lines of faulting in the older rocks. The distribution of trap dykes in these metamorphic rocks is markedly peculiar, but it has hitherto received no satisfactory explanation. In Tinnevelly and South Travancore they are of extreme rarity. Very few also are met with in Madura, Poodoocottah and South Trichinopoly, as well as in the granite vein band north of the Cauvery. In North Trichinopoly and Salem and South Arcot the number increases appreciably and

some are of large size both in length and thickness. In Coimbatore, as far as known at present, they are not numerous. On the Neilgherries they are few in number and small in size, while in the Wynaud only one small one is known. In North Arcot they become very numerous and are often of large size and great length, cutting up the country with a marvellous network of black ridges often of considerable height. They continue very numerous in South-west Cuddapah and Anantapore, but become rather less so in Bellary and Kurnool Districts. In Chingleput, Nellore and Kistna dykes are not by any means common and none of large size. As to composition, they are almost without exception formed of dioritic trap generally of medium texture, but both extremely coarse (porphyritoid) and very fine-grained varieties are to be met with.

13. The thickness of the gneissic rocks is very great; that of the granite gneiss can hardly be measured owing to the obscurity of the foliation. The most favorable section of the schistose and massive gneisses is that occurring in the south of Salem District which includes the rocks from the southern base of the Talamullay mountain to the top of the great synclinal curve in the southern part of the Kollamullays. This section, in which there appears to be no duplication of the beds, gives them a thickness of upwards of 40,000 feet, while it is quite possible that the series here exposed is incomplete, the upper part of it having been removed by denuding agencies. The great mass of the gneiss of the southern part of the peninsula has not been submerged below the sea since palæozoic times, and there may be seen in it one of the oldest known tracts of 'terra firma' on the face of the globe.

14. *Transition or Sub-Metamorphic.*—The transition or sub-metamorphic rocks consist of schists, slates, quartzites, breccias, limestones, &c. The series covers a large area, and has a very great thickness. It has been divided into two sub-divisions, lower and upper. The lower or older shows a close connection with the gneissic strata by partial metamorphism, conformable sequence, or granitic intrusion; from which the upper is free. The lower is not represented by any observations in this Presidency. The upper is represented by what is known as the Cuddapah formation.

15. The Cuddapah formation of upper transition rocks occupies a large area about the middle of the east side of the peninsula, where the coast-line bends from a northerly to a north-easterly direction. This feature has probably a remote connection with the form of the Cuddapah basin, which is roughly of a crescent shape, convex to the west. The north-east horn of the crescent is known as the Pulnaud, and reaches to Juggayapett, a few miles north of the Kistna river; the southern termination at Tripatty hill is 70 miles north-west of Madras, or only 50 if measured to the outlier at Nagary Nose. The town of Cuddapah stands in a south-central position near the Pennair river. Gooty is just outside the western border at its centre, and Kurnool more to the north, on the Toongabudra, a few miles above the confluence with the Kistna. The length of the basin is about 210 miles and its width 95, the area being nearly 13,500 square miles. The eastern edge of the basin constitutes a well-defined segment of that vaguely expressed general feature known as the Eastern Ghauts. Locally, the actual face of the highlands is here known as the Yellacondah ridge. It is a flanking member of the Nullamullay range, which is formed by a belt of contortion of the Cuddapah rocks along this side of their basin. Between the hills and the sea there is a zone of low country, formed of metamorphic rocks and alluvium, about 50 miles wide, constituting the plains of the Carnatic, or Payeen Ghaut (country below the ghauts) in the Kistna, Nellore, and North Arcot districts. The elevation of this ground at the base of the hills is under 200 feet, the crest of the Yellacondah rising to about 2,500, and the summits of the Nullamullay to 3,000. The centre of the Cuddapah basin is occupied by the broad valley of the Coondair, the rocks rising again to form a steep range (locally 2,000 feet above the sea) along the western margin of the basin, overlooking the gneissic upland of Mysore and Bellary, the elevation of which near the range varies from 800 to 1,800 feet according to the position with reference to drainage. The Madras Railway enters the basin 7 miles east of Gooty, and leaves it at the southern point of the crescent, while the Kistna river adopts a very similar course in the northern limb. The watershed of the basin lies far to the north, and the Pennair receives most of the drainage. More than a-third of the area within the boundaries indicated is taken up by the overlying Kurnool formation (to be described later on), which occupies all the low ground of the Coondair valley in the middle of the basin, and another large space in the Pulnaud. The Cuddapah formation has been divided into the following groups in descending order:—

Kistna group, 2,000 feet ...	Quartzites (Shreeshalam). Slates (Collamnullah). Quartzites (Irlacondah).
Nullamullay group, 3,400 feet.	Slates (Cumbum). Quartzites (Beirenicondah).
Cheyair group, 10,500 feet ...	Slates (Poollampett). Quartzites (Nagary).
Paupugny group, 4,500 feet ...	Slates (Vempully). Quartzites (Goolcheroo).

Although in order of time the succession may be taken strictly, it is scarcely to be supposed that there was ever at one spot a continuous superposition of these strata to the extent of their aggregate thickness. The exposed outcrops, at least, do not support such a view; even within the present rock-basin, which must be taken as only a part of the area of deposition, the groups are local and discontinuous, each in turn overlapping the one below it, and resting on the gneiss. In each case, however, there is more or less of denudation-unconformity as well as overlap; so that the groups are much more than mere horizons of variation in deposition. The original characters of deposition and the induced characters of disturbance are closely related to the actual boundaries of the field. All round the western boundary the junction is natural, i.e., the deposits rest as originally deposited upon the gneiss, the strata having undergone comparatively little disturbance. On the east side of the basin, on the contrary, there has been much contortion of the strata; the boundary is faulted and the beds often inverted, generally presenting the appearance of a band of quartzite dipping steeply towards the gneiss. The lower groups are found to the south-west, and are gradually overlapped to the north and east.

16. In each of the groups of the Cuddapah series, sandstones or quartzites prevail at the base, and earthy deposits forming shales or slates above, limestones often occurring with the latter. The Paupugny group is only found between the Toongabudra and the Cheyair, being overlapped in both directions by the Cheyair beds. It takes its name from the river, in the gorge of which the best sections are seen. Its bottom member, the Goolcheroo quartzites, rest upon an uneven surface of the gneiss, and rise up to the west to form steep cliffs over an undercliff of the crystalline rock, as over Goolcheroo (15 miles south-south-west of Cuddapah). Although the contact is quite sharp, the two rocks are often connected together into an adhering mass. A considerable thickness at the base is coarsely conglomeratic, the pebbles consisting of the brecciated veinstones and banded jasper rocks which form prominent outcrops in the adjoining metamorphic area. These bottom beds are described as shore-deposits. In the overlying Vempully sub-division of the Paupugny group, limestone is largely associated with the shales, and intrusive sheets of trap are also of frequent occurrence. In contact with or near the trap, the limestone often contains bands of serpentine and steatite, as may be seen close to Kurnool, where the Vempully band has overlapped the bottom sandstones, and rests directly on the gneiss. Vempully is a village 30 miles west-south-west of Cuddapah.

17. The Cheyair group is well-exposed on the Cheyair river. It is divided into two areas by the Kurnool formation stretching southwards, west of Cuddapah, into contact with the Paupugny rocks. The constitution and relation of the Cheyair group in the two positions are somewhat different. In the north-west area, traversed by the Pennair, the bottom band of sandstones and conglomerates is comparatively unimportant. It is there described as the Poolivendla sub-division, from a town 40 miles west by south of Cuddapah. North of the Kistna it overlaps the Vempullies, and in the Pennair ground it rests upon their denuded surface, the conglomerates and breccias being largely made up of the characteristic chert-bands of the Vempully limestone. Here, too, intrusive sheets of trap occur in the Poolivendla band. The corresponding beds in the southern area are described as the Nagary quartzites, from the well-known hill near Madras. They form for the most part in this region the bottom rock of the Cuddapahs, resting on the gneiss. The conglomerates here are made up of pebbles of quartz and quartzites (which are themselves sometimes conglomeratic), and occasionally of red-banded jasper, being thus more like the Goolcheroo beds of the Pennair area. The upper band of the Cheyair group is described in the Pennair area as the Tadpatry beds, named from a principal village of the district. They comprise a great series of slaty shales with limestones and eruptive rocks, both intrusive and contemporaneous, ferruginous chert and jasper beds. The shales predominate; although not greatly disturbed, they are to some extent affected by

cleavage, and are hence qualified as slaty. Limestone occurs in two principal bands. It is a finely crystalline grey rock, with much segregated chert, which often assumes very fantastic shapes, especially in the upper part of the beds and near trap flows. Of these eruptive rocks there are many strong outcrops, in two principal bands, a main one near the base of the group, and another two-thirds up. The only rocks that can be certainly classed as eruptive are coarse-grained, dark, basic diorites, sometimes compact and of grey or pale-green colors. They are shown to be contemporaneous by their outcrop being continuous for long distances between well-marked bands of aqueous deposits. But frequently the intervening deposits cease, and the flows coalesce; locally, moreover, they are distinctly confluent with intrusive dykes, as is well seen in the small bay below the southern flanks of the Oopalpaud plateau, 20 miles east of Gooty. Perhaps the strongest argument for the contemporaneity of the bedded traps on this horizon is the fact that no intrusive igneous rock is known to occur higher in the formation, or in the Kurnools, and this could hardly be the case if the massive bands in the Todapurty zone were intruded after the completion of the sedimentary series. In this group, and in the zone with the trap, representatives occur of porcellanic beds existing in the Gwalior formation in Central India. Their presence, as distinctly bedded rocks of quasi-igneous character, and the occurrence of the undoubtedly igneous rocks in a stratified condition, are certainly an argument in favour of the eruptive (volcanic) origin of both. The flaky granulated varieties are taken to be ash-beds, and the compact form is spoken of as felsite. There are, however, great difficulties opposed to the adoption of this view. These highly silicious beds would be of the very opposite type of volcanic products from the real igneous rocks with which they would thus be connected. Silicious lavas are the least prone to assume a finely stratified condition, whereas these beds are quite remarkable for their continuity in thin, sharply defined beds; so that it is very difficult to conceive that they were originally fused rock. It would not be easy to imagine that explosive ejections, alternating with eruptions of basic rock, could be so exclusively of the felspathic type; and it appears probable that any connection of these porcellanic beds with igneous rocks can only be through the remote and collateral effects of eruptive action, such as mineral waters. Similar porcellanic beds occur extensively and typically in the lower Vindhyan formation, in which no eruptive rock is found. In the Cheyair area, the Poollampett slates and limestones represent the Todapurty beds of the Pennair. The traps and porcellanic beds are absent. The limestones are again silicious, and sometimes they are brecciated in a very unaccountable manner, without any disturbance of the strata. Some beds present a rugged humpy surface, suggestive of a coralline formation, but no organic structure has been detected.

18. The Nullamullay occupies a larger area than the other groups, principally on the east side of the basin, and takes its name from the mountain range. The Beirenicondah summit, 3,133 feet above the sea, gives its name to the bottom band of quartzites. In the Palcondah range, east of Cuddapah, these quartzites rest with slight unconformity upon the Cheyair group. In the Pennair area, the strong quartzites of the Gundicote hills overlying the Todapurty shales are on the same horizon. Here the beds have a gentle north-easterly slope and pass under the Kurnool formation, but when they rise again to the east, in the Nullamullays, contortion is the rule, often to so extreme a degree as to produce folded flexures and inversion. In the synclinal troughs of these contortions the upper member of the group is found, called the Cumbum slates, the underlying quartzites rising up to form the ridges. The Cumbum slates are by far the thickest member of the group, and cover the greater part of the area. They are not very uniform in composition. There are several subordinate bands of quartzite, which it is not easy in broken ground to distinguish from the underlying Beirenicondah rock, and the slates themselves present many varieties,—from fine, silvery, talcose beds, to coarse, earthy clay-slates of many shades of color. Occasionally they are foliated and schistose, and not easily distinguished from the schistose beds of the adjoining gneissic area, when the two happen to come in contact; but, as a rule, quartzites are found at the junction. Strong bands of limestone are frequent in the Cumbum slates. The old lead mines near Nundiaulampett, 16 miles north of Cuddapah, occur in a dark silicious variety of this rock. Generally, it is compact or finely crystalline, micaceous or talcose, of a slate-grey color with purple tinges. At the north end of the Nullamullay, just south of the Kurnool and Goontoor road, there is a great dome-shaped mountain known as Eeshwaracooppam. It is composed of lower Cuddapah rocks dipping away from the hill on all sides, and surrounded by Nullamullay beds. A great thickness of strata is exposed, but it is not easy to identify them specifically with the groups already described.

19. The fact that strong bands of quartzite occur subordinate to the Cumbum slates, introduces much difficulty into the attempt to distinguish a higher group. Thus several ridges within the area of the Nullamullay group are thought to belong to an upper independent group. The rock forming the Yellacondah range at the edge of the basin affords an instance. The range is formed to the south of strong, fine, white quartzite, and the Cumbum slates dip under this, whereas on the north the same slates rest upon the quartzites of the ridge which are supposed to be Beirenicondahs, the ridge itself being continuous throughout. Two solutions have been offered of this difficulty: that in the southern part of the range the quartzites are inverted, being really the same band throughout; or, that an oblique fault, south-south-east of Gidaloor, has brought in an upper quartzite to the south. The fact of the outcrops of such widely different horizons being so continuous is an obstacle to this supposition. The question is mentioned here to indicate the complexities introduced by disturbance in this part of the Cuddapah basin. There seems, however, good reason to suppose that the plateau through which the Kistna has cut its gorge, and which is known as the Kistna Nullamullay, is formed of beds higher than the Nullamullay group and unconformable to it. These beds are therefore distinguished as the Kistna group. They comprise three well-marked divisions: the Irlacondah quartzites, forming the plateau of that name on the west, where they are 1,200 feet thick; the Shreeshalam quartzites, forming a higher plateau to the north and east, called after a well-known shrine on the Kistna; and the intermediate shales, which are called Collamnullah, after a stream that traverses them. To the north the group spreads out over a flat surface of gneiss, and to the east it passes under the Kurnool beds of the Pulnaud, in which region again, the rocks on the east are intensely disturbed.

20. *Vindhyan.*—This term was first applied to the sandstone formation in the valley of the Nerbudda. It was then extended to a much larger area. It bears a name derived from a locality, but it is understood to represent a system chronologically later than that last-named. It is of great antiquity, and probably what would be called by English geologists pre-silurian. There is an immense gap between it and the next observed system, or the Gondwana; and this gap may mark an extensive and prolonged period of terrestrial conditions. This system also is divided into lower and upper, or older and newer.

21. Of the original Vindhyans, now specially distinguishable as upper Vindhyan, no certain equivalents have been recognised south of the Sone-Nerbudda valley, but of the lower Vindhyans many representatives are known in this Presidency. Of these the one most closely related to older rocks is the Kurnool formation, which lies almost altogether within the basin of the Cuddapah upper transition series where it is found in two separate areas; the larger one occupies the whole of the Coondair valley and stretches to beyond the Kistna; the other lies in the district known as the Pulnaud. The formation here might, without difficulty, be regarded as a member of the Cuddapah series: its total thickness is only 1,200 feet, which is less than the smallest group of the Cuddapahs; its unconformity to the groups below it is but little greater than these exhibit among themselves; and on the east side of the basin it has undergone the full effects of the disturbing forces which have acted upon the underlying rocks. The Kurnool formation has been divided into the following groups:—

Coondair group	Shales (Nundiaul). Limestones (Coilcoontla)
Paunem group	Pinnacled quartzites. Plateau quartzites.
Jummalmudoogoo group.	Shales (Owk). Limestones (Narjee).
Bunganapully group ...	Sandstones.

It is principally a limestone formation, with subordinate bands of sandstone and shale. The Bunganapully sandstone, so called after the town of that name, is usually only from 10 to 20 feet thick, and is sometimes altogether overlapped. There are local signs of its partial denudation below the succeeding limestone, but, on the other hand, some bands of sandstone or quartzite intercalated at the base of this limestone suggest a continuance of the conditions and a close connection of the rocks. The interest of the Bunganapully sandstone is that it is the principal, if not the only, rock of this region in which the diamond is known to be found. Diggings are carried on in many parts of the country on or near the Kurnool formation, but mostly in

the superficial gravels. At Bunganapully, however, there have been extensive workings in this bottom sandstone. Shallow pits, not more than 15 feet deep, are sunk in the sandstone, and short galleries driven in the diamond-layer, which must be at the very base of the group or close to the bottom bed. Superficially, the sandstone is hard and compact, and has quite the character of a quartzite; but even at the small depth sunk to, the beds are soft and easily worked. The Bunganapully group consists of sand-stones, generally coarse, often earthy, occasionally fel-spathic or ferruginous, and usually of dark shades of red, grey, and brown colors. Pebble-beds are frequent, the pebbles being small and very numerous, composed of quartzite and various colored cherts, jaspers, and hard-ened shales, evidently derived from the cherty shales with bands of trappean rock of the Cheyair group of the Cudda-pah series on which the Bunganapully beds rest. The dia-monds occur in some of the more clayey and pebbly layers. It has been stated that they are innate in this rock; but the gisement suggests that even in this position they are of detrital origin. The Jummalmudoogoo group takes its name from a large village on the west side of the Coondair valley. It is composed at top of buff, white, and purplish, non-calcareous shales, well seen near the village of Owk. They have a maximum thickness of 50 feet, and pass down gradually into a finely crystalline or compact limestone, generally blue-grey, sometimes nearly black, and occasionally of pale buff and fawn colors. A very inferior lithographic stone used to be obtained from these beds, but the rock is now much used for building, large quarries having been opened near the railway at the village of Narjee, by which name the stone is known. West of Bunganapully, the Narjee limestone is about 400 feet thick, but thins out both to the south and north. In the Raichore Doab, about Kurnool, it rests on the metamorphic rocks, where it becomes cherty and brecciated in a peculiar manner, and is there described as a shore-deposit. Between the open Coondair valley and the western ranges, or Yerramullay, there are in the Kurnool district some low, flat hills, such as the plateaus of Oopalpaud and Oondootla. These low plateaux are composed of a middle sandstone or quartzite band found locally intercalated in the Kurnool limestones and known as the Paunem group, after the town of that name. The greatest thickness of the quartz-ites is only 100 feet, and the group disappears altogether to the north and south; nor has any sign of it been observed on the eastern edge of the basin. An upper por-tion formed of firm white sandstone has been distinguished as the 'pinnacled quartzite,' from its mode of weathering; the lower beds, or 'plateau quartzites,' are coarser, more earthy and ferruginous, of various rusty tints. In a basin of slightly disturbed strata the uppermost group must cover the largest area, and so the Coondair beds occupy the whole valley of the Coondair. There is a thickness of 500 to 600 feet; the upper two-thirds, of purple calcareous shales and earthy limestones, being distinguished as the Nundiaul shales, after a large village of that name: they pass insensibly down into purer, compact, and crypto-crystalline, flaggy limestones known as the Coilcoontla band from a town ten miles south-east of Bunganapully. The town of Cuddapah and all the large villages in the centre of the valley are on the Nundiaul shales. In this position the rock is soft and crumbling, but to the south and east, on the margin of the mountain region, these uppermost beds of the whole sedimentary basin are quite slaty, being cleaved and contorted proportionally with the underlying formations. In this group also the character of the limestones changes to the north-west, in the proximity of the metamorphics, where the Coilcoontla beds are described as shore-deposits that never extended much beyond their present boundary.

22. The Pulnaud limestone appears to represent the Kurnool formation; and even the sub-divisions have been in a manner specifically recognised in the south-west part of the ground. The limestone is everywhere underlaid by a diamond-bearing sandstone, which has thus been supposed to represent the Bunganapully rock. In the Pulnaud country, however, there is great difficulty in distinguishing this rock from a closely associated sandstone clearly belonging to the Cuddapahs, but of the Kistna group, at the very top of the Cuddapah series and several thousand feet higher stratigraphically than are the beds of the Cheyair group underlying the diamond-sandstone of Bunganapully. Such at least is the position made out for the bottom sandstone on the south-west of the Pulnaud towards the expanding rock-basin; on this side, too, some slight unconformity has been pointed out between the Pulnaud limestone and successive masses of the sandstone, and it has been remarked that the diamond workings here are confined to the rock close under the limestone, so as to suggest the limitation of diamonds to the horizon of the Bunganapully group. All round the north-east corner of the basin, however, this sandstone, there known as the Juggayapett quartzite, rests directly upon the gneiss. The leading structural character of the Cuddapah basin is maintained in the Pulnaud: on the west side the strata are comparatively undisturbed, while on the east border they are cleaved, foliated and contorted, and this involves for the Kurnool formation a difficulty analogous to that already noticed for the Cuddapah rocks. Accord-ing to one interpretation, there would be in the eastern ranges a natural ascending sequence of shales, limestones, and quartzites above what have been described as the Pulnaud limestones, and so these upper rocks would be newer members of the Kurnool formation; according to another view this sequence is deceptive, being due to total inversion of the strata, the top quartzite being really a Cuddapah rock. The relation here exhibited shows the arbitrariness of the seemingly broad distinction between the upper transition and the Vindhyan series.

23. Palæozoic Rocks — *Lower Gondwana.* — There appears next in order a great system of beds, chiefly composed of sandstones and shales; which are held to have been entirely deposited in fresh water and probably by rivers. Remains of animals are very rare in these rocks, and the few which have hitherto been found belong chiefly to the lower vertebrate classes of reptiles, amphi-bians, and fishes. Plant remains however are found, and evidence of several successive floras has been detected. The sub-divisions of this great plant-bearing series have been described under a number of local names, of which the oldest and best known are Talcher, Damodar, Maha-deva, and Rajmahaul, but the Geological Survey has now adopted the term Gondwana for the whole series. This term is derived from the old name for the countries south of the Nerbudda valley, which were formerly Gond kingdoms, and now form the Jubbulpore, Nagpore and Chatisgurh divisions of the Central Provinces. In this region of Gondwana the most complete sequence of the formations constituting the present rock system is to be found.

24. The Gondwanas are divided into lower and upper, representing an earlier and a later age. When it is stated that with the Lower Gondwana only begins as regards the presentation of evidence of organic life any correspondence with the lowest term in the English classification, some idea is given of the difference of conditions between English and Indian geology. However, as regards chronology, only such an antiquity does not belong to the Lower Gondwanas. In this respect they probably belong to the same period as the Permian, which stands at the head of the English palæozoic formations. There is not much clue as to the form of the peninsula in the Lower Gondwana period, and all that can be said with certainty is that its northern part was a terrestrial area traversed by great rivers.

25. The Lower Gondwana series is divided into three groups, the Talcher, Damodar, and Panchet; of which the first and second only concern this Presidency. The Damodar group is of the highest economical value, as containing a quantity of valuable minerals, greater than that known to occur in all the other rock groups of India taken together. One of its sub-divisions, called the Baraukar occurs in the valley of the Godavery. This is the lowest and most important specimen of the Damodar group, and produces coal. An upper sub-division of the Damodar found in this Presidency is the Kamptee.

26. The flora of the Lower Gondwanas consists of acrogens and gymnogens, the former being mostly ferns. A plain distinction is to be traced between the flora of the three groups above mentioned, Talcher, Damodar, and Panchet; showing different ages of production, possibly with immense intervals viewed with regard to human chronology. That of the Damodar shows a close resem-blance to the carboniferous flora of Australia, at the same time that it shows no similarity with that of Europe. There may have been a land-connection between Australia and India at this period. Three species of animal fossils have been discovered in the Damodar formation: the Estheria mangaliensis, a crustacean, and a species of Archegosaurus and Brachyops laticeps, labyrinthodont amphibians and vertebrates. These are the first animal forms of Southern India. It is supposed that the Lower Gondwana formations indicate a temporary period of low, if not glacial, temperature in the history of these latitudes. A secular diminution in the sun's power, or a change in the earth's axis, might equally be assigned as a cause for such a condition; but of the two the former seems the most reasonable hypothesis.

27. The following are details regarding the intrinsic formation of the Talcher, Baraukar, and Kamptee groups or sub-groups practically occurring in this Presidency. The Talcher consists of fine silty shales, and soft sand-stone of lacustrine or river valley origin. Rolled boulders

and pebbles occur, believed to have been transported to their final position by ground ice; as in similar beds in South Africa. The Talcher fossils yet found are very few. Of animal remains there is scarcely any trace. The Baraukar consists of conglomerates, sandstones of various kinds, shales and coal. The sandstones are often coarse and felspathic, a variety of frequent occurrence being rather massive, white or pale brown in color, soft at the surface where exposed, and not much harder below, consisting of grains of quartz and decomposed felspar. The weathered surface of this sandstone frequently exhibits small projecting knobs, due apparently to calcareous concretions. One of the most striking distinctions between the sandstones of the Talchers and those of the overlying formation consists in the felspathic constituents of the former being, as a rule, undecomposed, whilst in the Baraukar formation the grains of felspar are almost invariably converted into kaolin. Besides the whitish felspathic sandstone, another typical Baraukar rock is a conglomerate of small, well-rounded, white quartz pebbles. These are sometimes found scattered over the surface and serve to indicate the presence of the conglomerate where it is not exposed in section. The matrix of the conglomerate is usually white sandstone. In general, however, to the eastward, the greater portion of the Baraukar rocks consist of shales, grey, blue or black, frequently micaceous, and more or less sandy, occasionally associated with argillaceous iron ore, and often containing seams of coal. Not unfrequently the shaly beds are interstratified with hard flags. The coals of the Baraukar group vary greatly in quality and character in the different coal-fields. They all, however, agree in having a peculiar laminated appearance, due to their being composed of alternating layers of bright and dull coal, the former purer and more bituminous than the latter, which in many cases is shale rather than coal. The best coals are those in which the bright layers predominate, but nearly all seams hitherto discovered are somewhat inferior to average European coal of the carboniferous formation, and there is a general tendency to variation in the thickness and quality of each seam within short distances. At the same time excellent fuel has been obtained from some Baraukar seams. Some coal-beds are of immense thickness, single seams (including partings of shale) amounting to as much as 35 feet in the Raneegunj coal-field, 50 feet near Chanda, and no less than 90 feet at Korba in Billaspore. In places the Baraukars rest quite conformably upon the Talchers, and the two groups appear to pass into each other. Plants in this formation begin to be abundant, but not yet animals. The Kamptees consist mainly of soft porous sandstone, brown or white in color, and conglomeratic in places; often with hard ferruginous bands, and a few red shales. A peculiarity of this group is the absence of carbonaceous markings; in the other groups the remains of plants usually retain a portion of their original carbon.

28. The following are geographical notes on the same subject. The south-eastern portion of what is known as the Godavery basin forms a well-defined area, only joined to the remaining tract by a narrow neck, south-west of Bhadrachellam. The area comprises the most southerly exposure of Lower Gondwana rocks (Damodar and Talcher) known to occur in India, and their importance, as offering some hope of the discovery of coal within the Madras Presidency, has led to their receiving more attention than similar beds in the region to the north-west of the basin. The tract in question is irregularly shaped. It consists principally of a belt of country running from north-west to south-east for above 50 miles, and in general about 25 miles broad, but expanding towards the south-east into a much broader area, which extends from the Godavery above Rajahmundry for a distance of 60 miles to the south-west, ending within 20 miles of the Kistna river at Bezwada. This south-eastern portion, however, consisting of Upper Gondwana beds alone belongs to a different section, the outcrops of the eastern coast, and it will consequently be described separately. On the northern portion of the basin too there is an expansion to the eastward, forming the coal-field of Maudavaram below Bhadrachellam. The boundaries appear to be for the most part natural. So far as is known, there is no abrupt junction with the older rocks extending for any great distance. Throughout the greater part of the boundary the Gondwana beds rest upon metamorphics; to the south-east, near Ellore, they disappear beneath Deccan trap, tertiary sandstones, and the alluvium of the Godavery and Kistna deltas. The formations met with in the north-western portion of the area are Talchers, Baraukars, and Kamptees. The Talchers are only seen on the margin of the tract in three localities, in all of which they underlie Baraukar beds. The first of these is on the border of the Maudavaram coal-field, east of Bhadrachellam. Here Talchers are seen to occur at or outside the northern boundary in three patches, none of which are of any extent, and the largest exposure, which is about 1½ miles long, is nearly, if not entirely, surrounded by metamorphics, and outside the general sandstone boundary. The same rocks are also seen south of the Godavery, at the south-east corner of the Maudavaram coal-field. The only other spot where the Talchers appear within the boundary is about 25 miles south-west by a little south of Bhadrachellam, on the south-west boundary of the Gondwana area, near a hill called Canigherry. But several Talcher outliers are met with about Doomagoodem and Bhadrachellam outside the edge of the Gondwana area; three at least appear in the bed of the Godavery, below Doomagoodem; two are very small and almost confined to the bed of the river; but the third, which occurs about 6 miles below Doomagoodem, extends for 5 or 6 miles to the eastward from the river. Another is met with on the Kinarsawmy stream, 5 miles west-south-west of Bhadrachellam, but it is only about 2½ miles across. The irregularity of the distribution of these patches of Talchers, and the absence of the formation, as a rule, at the base of the Baraukars, appear to show that the latter are more unconformable to the former than they usually are elsewhere. The Baraukars are found in three localities. The first of these is the Maudavaram coal-field on the Godavery, below Bhadrachellam. This is a tract of somewhat irregular form, 7 miles across from east to west, and 5 miles where broadest, from north to south; it is traversed throughout by the Godavery from west to east, and the area is about 24 square miles. The rocks are very poorly seen, the ground being much covered by alluvial deposits, but from the few dips observed, it appears probable that some of the boundaries are faulted. The portion of this tract north of the river has been explored by boring, and some coal was found, but the quality was inferior, and the seams thin and much mixed with shale, whilst the beds were found to vary much in thickness and composition within a short distance. The tract south of the river has not been thoroughly examined. The sandstones and shales preserve the usual character. The second tract of Baraukars is the Bedadnole field, which lies about 35 miles south-east of Bhadrachellam, and the same distance north by east of Ellore. The large village of Ashwarowpettah is 5 miles to the westward. This small field is 5 miles from north to south by about 2 broad, the Baraukars being completely overlapped both to the north and to the south by the Kamptees; the former rest on metamorphics to the eastward, no Talchers occurring, and to disappear beneath Kamptees to the west. The Baraukar area is about 5½ square miles. The only rocks seen at the surface are coarse felspathic sandstones, grey, white, or buff in color, with ferruginous concretions. At least 600 feet of Baraukar rocks would appear to occur, the dip being usually low, from 2° to 10°; some coal has been discovered by boring, but the quality is inferior. The third tract lies at the spot near Canigherry already mentioned, 25 miles south-west by south of Bhadrachellam and 15 miles south of Paluncha; it is 6 miles long from north-west to south-east and 2 miles across. The Baraukars rest partly on Talchers, partly on metamorphics to the westward; they look as if cut off by a fault to the north-west, whilst to the east they are covered up by Kamptees. The greater portion of the area under description consists of Kamptee beds. Further examination may show that some strata now assigned to the Kamptees must be referred to a higher formation, but there can be but little doubt of the relations of those rocks which occupy the surface throughout the greater portion of the tract. They are chiefly coarse felspathic sandstones and grits, generally loose textured, and of various shades of brown, often conglomeratic and frequently traversed by ferruginous bands. But at places white, lilac, and red argillaceous shales occur, and in some instances, chiefly along the south-west boundary, the typical yellow compact shale weathering red is seen. In the interior of the tract the Kamptees form large masses of hills, nearly flat-topped, the beds rolling about with very low dips. It appears probable that there is great unconformity between the Kamptees and Baraukars, and extremely local distribution of the latter may be due to their having been largely denuded before the deposition of the Kamptee beds. At the same time there is a possibility that the Baraukars were originally deposited in isolated patches.

29. Mesozoic Rocks—*Upper Gondwana.*—These are plainly separable from the Lower Gondwana in age, and they show higher forms of life. The flora is essentially different. A variety of the lower vertebrate classes of reptiles, amphibians and fishes are here found. In the Upper Gondwana period the sea occupied as now the Bay of Bengal, and a portion at all events of the Arabian Sea; and large rivers traversed the land then as at the present day, though not in precisely the same courses,

The general form of the southern part of the peninsula may have agreed more nearly with the present contour than the northern; for the sea covered the Indian desert and portions of the Punjaub and Himalaya. At this stage the evidence of connection with Australia is faint, but that of connection with South Africa subsists.

30. The Upper Gondwana groups are most fully represented in the Sautpoora geological basin, the typical series there being the Mahadeva. Another important group however is the Rajmahaul. This derives its name from a range of hills in Bengal, extending north and south from the Ganges to the neighbourhood of Sooree in Beerbhoom. The range again is named from the town of Rajmahaul on the Ganges at the northern end of the hills. The representatives of the Rajmahaul group, unlike those of other members of the Gondwana series, are confined to the neighbourhood of the eastern coast of the Indian peninsula. Some species of fossil plants, identical with Rajmahaul forms, have been found in other localities, but they are either isolated or associated with plants belonging to a different flora. In its typical locality the Rajmahaul group consists of a succession of basaltic lava-flows or traps with interstratifications of shale and sandstone. The sedimentary bands are proved to have been deposited in the intervals of time which elapsed between the volcanic outbursts, by the circumstance that the different bands of shale and sandstone differ from each other in mineral character, and also that the upper surface of the shaly beds has sometimes been hardened and altered by the contact of the overlying basalt, whilst the lower surface is never affected. The sedimentary bands are chiefly composed of hard white and grey shale, carbonaceous shale, white and grey sandstone, and hard quartzose grit. The representatives of the Rajmahaul group in Southern India do not comprise volcanic rocks. Near the eastern coast, however, representatives of the Rajmahaul group have been recognised by their fossil plants in several localities. These representative beds consist of coarse sandstones, often conglomeratic; clays and shales, many of the latter being white and hard, and somewhat resembling the typical intertrappean beds of the Rajmahaul area. The sandstones are sometimes richly colored, red or yellow, but more often grey, white or brown, and they are usually soft and argillaceous. Towards the base of the group a very coarse conglomerate is found, often containing immense blocks of gneiss or other crystalline rocks derived from the immediate neighbourhood. Such is the general character of the beds. Another peculiarity by which the Gondwana outcrops of the east coast are distinguished from all others in India, except the beds of Cutch, is their association with rocks containing marine jurassic fossils. The association of marine fossils with the Rajmahaul group along the east coast appears to indicate that these beds were not deposited, like the other Gondwana formations in river valleys, but on, or near, the seashore. The plant beds may be deltaic or lagoon deposits, but the presence, in several instances, of Ammonites, probably indicates that some of the strata must have been formed in the sea itself. In this case, therefore, we have very valuable evidence as to the old shore line; for the association of plants and pelagic shells shows that then, as now, the eastern margin of the peninsula was a sea-coast, and one of the boundaries of the land traversed by the rivers of the Gondwana period.

31. The localities at which the Gondwana formations are known to occur along the eastern edge of the peninsula in this Presidency are the following, beginning at the north:—(1) Outcrops east of Rajahmundry; (2) Ellore area (part of Godavery-Gondwana basin); (3) Ongole outcrops; (4) Shreepermatore outcrops; (5) Trichinopoly outcrops; (6) Shivagunga outcrops.

32. The east coast from Ganjam to Vizagapatam has not been surveyed, but south-east of Vizagapatam, and between that town and Rajahmundry, several outcrops of Gondwana beds have been found. These exposures are six in number, and all are very small, none exceeding 5 miles in length; all are on the edge of the alluvium. The most eastwardly exposure is close to the coast, about 40 miles north-east of Cocanada, where a narrow strip of coarse brown sandstone, about 2 miles long, is seen resting upon the edge of the gneiss hill of Soodicondah. The next is a similar, but rather larger, outcrop, 8 miles to the south-west, near the village of Yidattam, where the bottom beds are hard, coarse gritty sandstone, brown in color, and often containing small pebbles. Half a mile to the south-west, near the village of Jelladipaud, is a small ridge, 1½ miles long, surrounded by alluvium, and composed of brown sandy clay and sandstone. Four miles west by south of this again, at Inoopooraz Polliem (or Inoopoorazcottapilly), there is another low ridge, a couple of miles in length, similarly rising from the alluvium, with gneiss ridges to the north. This southern ridge consists of purple and brown sandstones, and conglomerates containing casts of marine fossils, amongst which Trigonia ventricosa and Trigonia smeei, two of the most characteristic forms of the Oomia beds of Cutch, have been recognised. Twelve miles east of this again similar beds crop out on the edge of the alluvium near Kirlampoody, and occupy a rather larger area, extending nearly 3 miles from north to south by 2 miles broad, and 8 miles further east at Juggampett there is a sixth outcrop, more than 4 miles in length. The only one of these outliers which has yielded fossils is that of Inoopooraz. From the isolation of these patches, their relations to the Rajmahaul beds near Ellore are difficult to trace, but they appear to represent the highest sub-division or Tripatty sandstones.

33. On the left bank of the Godavery, near Tallapoody, about 10 miles above Rajahmundry and 25 miles west of the Juggampett outlier just mentioned, a well-marked belt of Upper Gondwana beds commences, which extends from the Godavery to beyond Gollapully, west of Ellore, a distance of 60 miles. The width of this belt varies from 10 to 15 miles. There is a general dip to south-east or east-south-east at 5° to 10°, and the beds rest unconformably, throughout a considerable portion of their area, upon various members of the Kamptee group, but they overlap this group both to the east and west, and rest upon a sloping floor of gneiss, which has the appearance of a plane of marine denudation, formed after the deposition of the Kamptee rocks, as the latter rest upon a much more uneven surface of the metamorphic formations. This appearance of resting upon a surface which had been fashioned by denudation after the deposition of the lower Gondwana beds, quite agrees with the peculiar distribution of the Rajmahaul group and its associates, which evidently were accumulated in a distinct area from that in which the Gondwana beds of the Godavery valley were deposited. To the south-east the Upper Gondwana beds of the Ellore area disappear beneath the tertiary Cuddalore sandstones and the alluvial deposits of the Godavery delta, except west of Rajahmundry, where the Gondwanas are covered by outlier of the Deccan traps. The rocks of the Ellore area are peculiarly interesting, because they appear to contain representatives of groups higher than the Rajmahauls, associated with beds in which the typical Rajmahaul flora is well preserved. In the official survey of the rocks of the Godavery district, the Upper Gondwana beds have been classed in three sub-divisions, thus distinguished in descending order:—(1) Tripatty sandstones; (2) Raghavapooram shales; (3) Gollapully sandstones. The Gollapully sandstones consist of brown and red sandstones and conglomerates, which, near Gollapully, form a hard plateau capped by conglomerates and gravels, probably belonging to the tertiary Cuddalore sandstones. In this plateau, near the village of Ravacherla, have been found numerous plant fossils, including Ptilophyllum acutifolium, species of Pterophyllum, Cycadites, Dictyozamites, Palissya, Alethopteris, Asplenites, Gleichenites, &c., nearly all of which occur also in the Rajmahaul group. These fossils are found in a fine yellowish-brown sandstone. The Gollapully beds extend throughout the area from the east of Gollapully to the neighbourhood of the Godavery. Above the Gollapully beds, about the middle of the area, occur the Raghavapooram shales, with Ammonites, Leda, plants, &c. These shales are traced for about 18 miles, intervening between the Gollapully sandstones and the Tripatty beds. The uppermost group, considered to represent the sandstones of the Inoopooraz outlier with Trigonia ventricosa and T. smeei, extends across the whole tract from Gollapully to the Godavery.

34. The outcrops which have been found near Ongole are very numerous, but owing to the manner in which the surface of the country near the coast is covered with laterite, lateritic gravel, and black soil, the rocks are ill exposed, and in many places can only be detected in well sections or excavations for tanks. The most northern exposure hitherto found in the country south of the Kistna river is close to the town of Goontoor; thence to Ongole there is a series of small tracts (five in all) along the edge of the coast alluvium. In these tracts shales and sandstone, very similar to those of Shreepermatore, are exposed. At the town of Goontoor, in well sections grits and conglomerates are seen, resembling in lithological characters some of the Shreepermatore beds. About 6 miles to the south-east of the town, a long low ridge rises from the alluvium and extends about 14 miles from north-east to south-west, though only about 2 miles broad. This ridge consists of compact brown, reddish and purplish gritty sandstones, probably representing the Tripatty sandstones, and resting upon soft white shales, with ferruginous partings, doubtless identical with the beds of Shreepermatore and Raghavapooram. The two most

important outcrops south-west of Goontoor are those at Incolloo, 26 miles north by east of Ongole, and at Vemavaram 14 miles north by east of Ongole. In each case the beds have been traced over 12 to 15 square miles of country. In the Incolloo outcrop, at the village of Boodavauda, 3½ miles west by north of Incolloo, limestones and calcareous sandstones were found containing large numbers of oysters, besides Ammonites, Patella, Pecten, Leda, Terebratula, Rhynconella, and numerous other genera of mollusca. The marine beds apparently are at a lower horizon than the sandy shales seen east of the village from which Ptilophyllum, Dictyozamites, and other plants were obtained. The plant beds contain a flora, apparently corresponding with that of the Raghavapooram shales, and comprising some species belonging to a higher horizon than the beds of Rajmahaul itself and of Gollapully. The fossiliferous marine beds underlying the shales are the upper bands of a group of gritty sandstones, corresponding in position to the Gollapully beds, whilst above the supposed representatives of the Raghavapooram shales there is a hard sandstone, which forms a small plateau north-east of Boodavauda, and which may very possibly represent the Tripatty group. Near Vemavaram a much greater thickness of beds is exposed, consisting of shales, white, buff, and purplish in color, with flaggy beds and thin bands of sandstone. In some of the higher bands an Ammonite (perhaps identical with that met with at Raghavapooram in the Ellore area), a Leda (the Raghavapooram species), and impressions of other shells have been found. These beds abound in plant remains beautifully fossilized, the species being mostly the same as those found at Gollapully. Remains of fish and crustaceans are also found. Another outlier is found at Yendloor, 6 miles west by north of Ongole, and in some clays and sandy shales a few plant remains were discovered, one of which was a Ptilophyllum. Some indurated sandstone occurs at this spot, the relation of which to the shales is obscure. South of Ongole several other small outcrops have been detected, the principal being west of the town of Cundoocore, 20 miles south-south-west of Ongole, and some highly fossiliferous shales are exposed in well sections at Cundoocore itself. It is evident that the representatives of the upper Rajmahaul beds here occupy a considerable area beneath the surface covering the laterite. These beds contain many of the usual Rajmahaul plants. The most southern exposure of the rocks in this neighbourhood is about 15 miles south of Cundoocore and west of Ramaputnam.

35. The Shreepermatore outcrops are a series of spreads and outliers, the former along the edge of the metamorphic rocks and intervening between them and the laterite or alluvium of the coast, the latter scattered over the surface of the gneissic rocks. All consist of the Rajmahaul group, and apparently of an upper sub-division of the formation, as near Ongole; they commence north-west of Madras and extend to the south-east, considerably beyond the Palaur river. None are known to exist more than about 50 miles from the coast. By far the largest expanse of Upper Gondwana beds in this neighbourhood lies west and north-west of Madras, in the neighbourhood of Suttivaid, Alicoor, and Pyanoor. The southern extremity of this tract is traversed by the Madras Railway at a distance of 37 or 38 miles from Madras, a little east of Arconum junction, and the outcrop extends about 35 miles from north to south, being only interrupted for short distances by the alluvium of the Narrainavaram and Nagary rivers, which divide it into three subequal divisions near Suttivaid, Alicoor, and Piyanoor, respectively. The width of each of these areas is from 5 to 6 miles; in all of them the sandstones of the Gondwana series rest on the metamorphics (the underlying formation in one instance only consisting of Cuddapah rocks) to the westward, and disappear to the east beneath laterite and alluvium, large outliers of the laterite being scattered over the sandstones of the Gondwana formations. The northern portion of this tract, considering it as a whole, consists of the Suttivaid group, consisting chiefly of coarse compact conglomerate. This forms the whole of the Suttivaid area north of the Narrainavaram river, and the greater portion of the central or Alicoor area. The southern portion of the latter, and the whole of the tract near Pyanoor, south of the Nagary river, consists of shales, sandstones, uncompacted conglomerate, and boulder beds belonging to the lower or Shreepermatore group. The boulder bed is always found at the base. The next outcrop is that of Shreepermatore. It lies south-east of the last, being separated from the Piyanoor area by the alluvium of the Corteliaur river and an expanse of laterite. The village of Shreepermatore at the northern extremity lies 25 miles west-south-west of Madras. From the neighbourhood of the village the Rajmahaul beds are seen for about 15 miles to the southward, and their exposure extends about 9 miles from east to west at the northern end, but the breadth diminishes to the southward. The Rajmahaul area is surrounded by laterite, but metamorphic rocks appear here and there through the superficial covering, whilst inliers of the Rajmahaul beds are also found, showing that they exist in places beneath the laterite. The base of the sandstones is nowhere seen. The whole of this Shreepermatore tract is composed of the Shreepermatore group, and to the northward shales prevail, resting upon gritty sandstone, but in the southern portion of the area coarser beds are found. Remains or plants of Rajmahaul species, together with a few higher forms, are common, and near Shreepermatore they are associated with marine shells, as already mentioned in the preliminary description of the group. The outliers of these rocks to the south and south-west are numerous, but of small size. One group of nearly 30 small outliers, none of them exceeding 2 miles in length, whilst the majority are far smaller, is scattered over the country south-west of Conjeeveram. Another group of rather larger patches extends nearly in a line north and south, to the west of the main road from Madras to Trichinopoly, one outcrop, the southernmost and largest, which is about 4 miles long, being traversed by the road. All consist of Shreepermatore beds.

36. The outcrops of the Rajmahaul group near Trichinopoly occur in several isolated spots along the western edge of the cretaceous tract north of that town. They all rest upon metamorphic rocks to the westward, and dip to the east beneath the marine cretaceous beds, which rest upon them sometimes conformably, but generally with considerable unconformity, the plant beds having been extensively denuded before the deposition of the cretaceous rocks. The series of Rajmahaul outcrops comprises five distinct exposures, the most northern lying east of Perambalore, whilst the southernmost is close to the village of Ootatoor. The whole distance from north to south over which they are distributed is about 14 miles. The three southern outcrops are close together, and form a nearly continuous fringe to the cretaceous beds for between 6 and 7 miles. The Rajmahaul beds near Trichinopoly consist chiefly of soft sandy clays and micaceous shales, grey and brown in color, with, at the base, coarse ferruginous sand, containing pebbles and large blocks of gneiss derived from the immediate neighbourhood. This bed is occasionally absent. The gneiss upon which these rocks rest is always greatly decomposed. Plant remains, principally Ptilophyllum, occur here and there, but the impressions are rarely well preserved. The flora, like that of Shreepermatore and Ongole, appears to indicate a rather higher horizon than that of the typical Rajmahaul beds. The Shivagunga outcrops occur north and north-east of the town of Shivagunga in Madura District. They are very small, and have as yet yielded no fossils, but their petrological resemblance to some of the Shreepermatore formations is perfect. There are, moreover, traces of boulder beds resting on the gneiss in the immediate vicinity which bear a very strong resemblance to similar beds at the base of the Rajmahaul beds at Ootatoor and elsewhere.

37. *Cretaceous Marine.*—Besides Neocomian beds of ferruginous oolitic rock seven miles south-east of Lakhpat in North-western Cutch, there are but two areas, widely separated from each other, in which marine cretaceous rocks have hitherto been found as occurring in the whole Indian Peninsula. The more important of these is in the neighbourhood of Pondicherry and Trichinopoly, the other is in the Nerbudda valley. The southern series is in three groups which occupy three areas: the northern, or Pondicherry, area lying west of Pondicherry town; the central, or Vriddhachellam, area west of the town of that name; the southern, or Trichinopoly, area, the largest of all, occupying an area of over 300 square miles between the Vellaur and Coleroon rivers. The lowest or Ootatoor group, named from a village 20 miles north-north-east of Trichinopoly, corresponds to the chalk marl and upper greensand of England. The Trichinopoly or middle group differs from that in the occurrence of granite pebbles; it yields the shell-limestone of Garoodamungalam, which is well-known as Trichinopoly marble. The highest or Ariyaloor group, named from a town 34 miles north-east of Trichinopoly, is more sandy than these two and is the richest in fossils. The South Indian cretaceous deposits yield a grand total of nearly 800 species of animals; of the whole invertebrata, 16½ per cent. consist of European forms. Similar fossils are not found elsewhere in India; but in South Africa there is again, as in the Gondwana and marine jurassic beds, a singularly close connection with the rocks of Southern India. In some marine cretaceous strata of Natal, the majority of the fossils found are identical with those of the Trichinopoly formations. As the fossils are chiefly shallow-water and littoral forms, it appears here quite a probable conclusion that a line of coast still extended in cretaceous times from India to South Africa. This coast may have been the south shore of a land barrier separating the seas of Europe, Arabia, and Western India from those in which the deposits of Trichinopoly

and Natal were accumulated. The occurrence of cretaceous rocks in Southern India was first observed in 1840 by Mr. Kaye of the Madras Civil Service, who, in company with Mr. Brooke Cunliffe and others, collected a large series of fossils. The rocks near Pondicherry had some years before attracted notice, but no account of them was published until after the appearance of Mr. Kaye's description. The following are further details regarding the three groups.

38. The beds composing the Ootatoor group are chiefly argillaceous; fine silts, calcareous shales, and sandy clays, frequently concretionary, and more or less tinted with ochraceous matter, prevail throughout the group, and in the southern portion of the area constitute almost the entire bulk of the deposit. At the base of the Ootatoor group, there are, in several places, large masses of coral reef limestone, resting sometimes on the plant beds (Upper Gondwana), but more frequently on the gneiss, and occasionally on the lowest beds of the Ootatoor group itself. The rock is a nearly pure pale-colored limestone, compact and homogeneous, but often with a flaggy structure, and frequently irregularly banded with white streaks, which, on weathered surfaces, exhibit the corals of which they are composed. The mass of the rock also sometimes abounds in corals, but more frequently no organic structure can be traced. In lithological character this rock precisely resembles the coral reef limestone of the present day. The usual position of this limestone is at the base of the Ootatoor group, resting upon older rocks. The coral reefs appear to have been frequently exposed to denudation during the deposition of the later Ootatoor beds, amongst which, in places, calcareous bands are found, apparently derived from the waste of the reefs. The coral limestone now remains in the form of small isolated patches, scattered along the western and southern margins of the cretaceous beds. In one locality, however, close to the village of Culligoody, on the southern boundary of the cretaceous area, and 20 miles north-east of Trichinopoly, by far the largest outcrop of the limestone in the area occurs at the base of the Trichinopoly group. This outcrop is of considerable breadth, and extends, with one or two breaks, for about 6 miles. From an examination of all the circumstances, however, it has been satisfactorily ascertained that this outcrop also belongs to the Ootatoor group, and that the Trichinopoly group rests unconformably upon it. The coral reefs appear to have been scattered over the sea bottom in shallow water, and probably along the coast, at the commencement of the period during which the cretaceous deposits of Southern India were formed. North of the villages of Garoodamungalam and Cauray, both in the neighbourhood of Ootatoor, limestone bands become intercalated in the lower or western part of the group, and sands, grits, and conglomerates in the upper or eastern part, these changes in mineral character being accompanied by a great enrichment of the fauna in the first case and an impoverishment in the other. Conglomerates are of very rare occurrence in the lower beds. Gypsum occurs in most of the argillaceous strata, and is to a certain extent characteristic of the sub-division. The dips are often irregular, and apparently due to the original deposition of the beds on shelving banks. This irregularity of dip renders it impossible to form any trustworthy estimate of the thickness attained by the group as a whole; it may, however, be roughly estimated as probably not less than 1,000 feet. The remaining beds of the Ootatoor group were probably deposited in water of moderate depth, and some of them appear to have accumulated on submarine banks formed possibly by tidal channels. Hence the false bedding so prevalent in the rocks. The coarser constituents of the rocks to the northward appear to indicate that the current which brought the sediment flowed from that direction, and the occurrence of littoral forms of mollusca in greater abundance throughout the northern parts of the area may be accounted for in the same manner. The beds in the southern portion of the Ootatoor area appear to have been formed of fine silt deposited in a bay where the force of the current was less than to the northward, and the fossils which occur are mostly the remains of pelagic animals, such as Belemnites or a few Ammonites, chiefly of the Cristati group, or else peculiar forms of Vermetidæ (Tubulostium discoideum and T. callosum), which probably lived in the mud. The Ammonites and Nautili, which are numerous to the northward, are scarce in the southern portion of the area. Cycadaceous (exogenous) fossil wood, sometimes bored by Teredo and other Pholadidæ, abounds in certain parts of the group. On the whole, there appears every reason to believe that the Ootatoor beds were formed in the neighbourhood of a coast-line as above said. The distribution of the Ootatoor beds in the Trichinopoly district is very simple. They form the western portion of the cretaceous area throughout: their outcrop being in general from 3 to 5 miles broad, except to the northward, where it diminishes in consequence of the beds being overlapped by those of the next group, till, in the northern portion of the tract at the village of Wolapaudy, the breadth of the Ootatoor outcrop does not exceed half a mile. At the extreme northern point of the area, both the Ootatoor and Trichinopoly groups are completely overlapped by the uppermost sub-division. The Ootatoor beds are not represented in the Vriddhachellam area, but they reappear near Pondicherry. The area occupied by the Ootatoor or Valathavoor beds near Pondicherry extends from Valathavoor for about 9 miles to the north-east and is about 4 miles broad. The beds are not seen to rest upon any older formation; north and south the country is covered with alluvium; to the eastward the Ootatoor beds disappear beneath the Ariyaloor group, and to the westward beneath the Cuddalore sandstones of Trivacaray. The beds to the westward appear to be the lowest, and there is a dip to the eastward. The fauna of the Ootatoor group is very rich, no less than 297 species of invertebrata having been described from it. It has yielded an especially large number of Cephalopoda, 109 species, of which 95 have not been met with in the Trichinopoly or Ariyaloor group. A very large proportion of the Cephalopoda were collected in the neighbourhood of two villages, Wothiyam and Maravattoor, on the road from Perambalore to Ariyaloor, and about 12 miles north-east of Ootatoor. Among the more interesting fossils yielded by the Ootatoor clays were several vertebræ of an Ichthyosaurus, I. Indicus, the first discovered in India.

39. The Trichinopoly or middle group of the Southern Indian cretaceous series derives its name from the district of Trichinopoly, to which it is, so far as present exploration extends, entirely restricted. To the south it consists chiefly of sands and clays, very irregularly bedded, with a few bands of limestone and some conglomerates, and it differs lithologically only in one important respect, which will be described presently, from the Ootatoor group. North of the neighbourhood of Alandanapooram and Garoodamungalam, east of Ootatoor, regular bands of shell-limestones become intercalated in the lower beds of the deposit, and to the northward the whole group is composed of regularly stratified alternations of sand, sandy clays, and shales, with bands of shell-limestone, calcareous grit and conglomerate. The peculiarity just mentioned by which both the Ariyaloor and Trichinopoly beds in the southern part of the cretaceous area are distinguished from the Ootatoor consists in the occurrence of granite pebbles in a considerable quantity in the gravels and conglomerates of the two former, whilst none are found in the lower sub-division. In the Ootatoor group the materials of the few conglomeratic or gravelly beds which occur are derived either from the gneiss or from the coral reef limestone, whilst in the two upper groups conglomerates are more frequently met with, and loose masses of unstratified gravel and beds of rolled pebbles, almost entirely composed of granitic materials, and resembling the shingle of a sea-beach, are of common occurrence. The source of the granite pebbles was evidently the broad belt of granitic rocks which forms the southern boundary of the cretaceous area, and divides it from the alluvium of Cauvery throughout the greater portion of its extent; and the necessary inference is that this band of rock was in all probability beneath the sea during the deposition of the Ootatoor beds, and that it was elevated above the water in the interval between the Ootatoor and Trichinopoly periods. The Trichinopoly beds are, even more characteristically than the Ootatoors, the littoral deposits of a shallow sea. This is proved, not only by the frequent occurrence of coarse sediment and the great irregularity of the deposits in part of the area, but by the abundance of fossil wood, almost exclusively exogenous, and apparently cycadaceous. Trunks of trees are met with of great size, as much as 3 feet in diameter and 60 feet in length; much of the wood being perforated by boring mollusca. The shell-limestone of Garoodamungalam and other places is a very fine hard bluish-grey translucent rock, usually abounding in beautifully preserved shells, both Gasteropoda and Lamellibranchiata, which retain their original polish, and occasionally even the coloration of their surfaces. This rock is largely quarried for ornamental purposes, and is known as 'Trichinopoly marble:' it has yielded a considerable proportion of the fossils found in the group. The limestone occasionally contains pebbles of granite or fragments of fossil wood, either of which is sufficient to distinguish it, even when it is unfossiliferous, from the Ootatoor limestones. The beds of the Trichinopoly group are unconformable to the Ootatoors, upon which they rest throughout the greater part of the area, the evidence of unconformity not being confined to overlap, but depending chiefly upon the proof afforded by the rocks at the southern edge of the area, that the Ootatoor beds had been disturbed and faulted, probably at the period of upheaval of the granitic

band already mentioned, before the deposition of the Trichinopoly formation. Elsewhere also the Trichinopoly beds in places rest upon a denuded surface of Ootatoors. There is also a great change in the fauna. In the southern portion of their range the Trichinopoly beds rest partly upon the coral reefs, which have been already shown to be some of the lowest beds of Ootatoor age, and partly on the metamorphics, a considerable portion of the boundary being formed by the granitoid rock so frequently mentioned already. The present group, like the Ootatoor, is so irregularly bedded, and the dips seen are so frequently those of original deposition, that no trustworthy estimate of the thickness can be formed. The general inclination is to the eastward; the average breadth of the outcrop is nearly the same as that of the Ootatoor beds, and the same minimum thickness, viz., 1,000 feet, may be assumed; the general dip of the bedding in the more regularly stratified portion of the group to the northward is, however, lower than in the underlying group, averaging about 6°. The beds thin out greatly to the northward, and are at length completely overlapped by the Ariyaloors. It has been stated that the Trichinopoly group is confined, so far as is at present known, to the Trichinopoly area. Within that area it forms a second belt east of that formed by the Ootatoor group, and extending similarly from south-south-west to north-north-east. The Trichinopoly outcrop is, however, broader in the southern half of the area, where it is about 4 miles across, than in the northern half, where it is in no place more than 2 miles wide. It thins out and disappears completely about 2 miles south of the place where the Ootatoors are similarly overlapped by the Ariyaloor beds. Along the southern boundary of the Ootatoor area, several outliers of Trichinopoly beds are found, resting partly on the Ootatoors and partly on the gneiss, and occasionally overlying the faulted boundaries between the two formations. These small outliers, one of which, south of Tripatore, forms the south-eastern corner of the whole area, are composed of coarse sands and conglomerates, usually unfossiliferous, but occasionally containing Chemnitzia undosa and other characteristic Trichinopoly fossils, and the materials of which they are formed are derived chiefly from the metamorphic rocks, but partly from the denudation of the Ootatoor beds. The fauna of the Trichinopoly group although not quite so rich as that of the Ootatoor beds affords a full illustration of the life existing at the periods, 186 species of invertebrata having been described from these beds. The Cephalopoda are comparatively poorly developed, only 23 species having been detected, and of these but 10, of which four are European, are in India peculiar to the group.

40. The name of the highest group of the South Indian cretaceous series is derived, as above stated, from the town of Ariyaloor, which is situated nearly in the middle of the comparatively large expanse of Ariyaloor beds in the Trichinopoly district. The country occupied by the beds of this group is much covered with cotton soil, and sections are even rarer than in the two lower cretaceous sub-divisions. The Ariyaloor beds are more sandy than the two lower groups, and more uniformly bedded, the beds being thick and homogeneous, and consisting principally of white unfossiliferous sands and grey argillaceous sands, with casts of small fossils. Beds of calcareous grit and nodular calcareous shales are found towards the base, and again in the upper portion of the group, and constitute two highly fossiliferous zones, separated by a considerable thickness of deposits, in which fossils are rare or wanting, although some interesting remains of a Megalosaurus were found in one of the beds. With the uppermost beds a band of flints is associated. There is a marked difference between the fossils of the upper and lower zones in Trichinopoly, and it appears very probable that further examination of the rocks, now that the fossils have been compared and determined, would justify the separation of this group into two. Conglomerates are of rare occurrence in the Ariyaloor group, though a coarse bed is found in places near the base, and, except close to the southern boundary, there is but little irregularity in the bedding. The constituents of the Ariyaloor beds were derived chiefly from the metamorphic rocks, and amongst others from the granitic band to the southward, but a portion of the sediment must have been furnished by the waste of some of the older cretaceous groups, probably the Ootatoor. The above description of the lithological characters is principally taken from the beds near Ariyaloor (Trichinopoly district), but it is also to a great extent applicable to the rocks seen near Vriddhachellam and Pondicherry. In both localities the Ariyaloor deposits are chiefly represented by sands or sandy clays, and by beds of arenaceous limestone or calcareous sandstone at the base of the group. The strata appear to thin out to the northward, and it is far from clear whether the uppermost fossiliferous zone extends in that direction, although some of its characteristic fossils, such as Nautilus danicus, occur abundantly near Pondicherry. It has not, however, hitherto been found practicable to determine whether a distinct upper zone exists near Pondicherry or whether representatives of the upper fauna occur in beds of lower horizon than those in which the same species are found near Ariyaloor. There is, consequently, some obscurity concerning the relations of the beds belonging to the Ariyaloor group amongst themselves, and this difficulty is complicated by the circumstance that there is in many places an apparent passage from the Trichinopoly group into the Ariyaloor beds; the rocks being similar in mineral character near the junction, and the fossils being chiefly forms which appear to range from one group into the other. It is highly probable that further examination of the ground, which, as has been already noticed, is so much concealed by superficial accumulations that the different groups can frequently only be traced by their fossils, would show that either the number of groups or palæontological zones must be increased, or else that, in some cases, fossils, supposed to have been procured from the Trichinopoly group, have really been derived from the Ariyaloor, and vice versâ. The area occupied by the Ariyaloor beds in the eastern portion of the Trichinopoly tract amounts to about 200 square miles, or more than that covered by both the other sub-divisions together; the outcrop where broadest near Ariyaloor is about 16 miles wide, and extends for 26 miles from north to south. The Ariyaloor beds also occupied the greater portion of a tract 16 miles long by 5 miles broad near Vriddhachellam, and another about 12 miles long from south-west to north-east, by 2 miles broad, west of Pondicherry, whilst a very small exposure of them occurs close to the coast 10 miles north of Pondicherry, and another still smaller 3 miles farther north. The lowest fossiliferous zone is found resting upon the Trichinopoly beds throughout the western portion of the Ariyaloor area in the Trichinopoly district, and the same zone appears to be also represented in the Vriddhachellam and Pondicherry exposures. The great bulk of the outcrop in all three tracts appears to consist of the thick sands, with but few determinable fossils, forming the middle portion of the formation, whilst the upper fossiliferous beds are only seen north of Ariyaloor, near the villages of Shendoray, Ninniyoor, and other places farther north, in the long strip of cretaceous rocks forming the north-eastern extremity of the Trichinopoly area, between the Cuddalore sandstones to the east and the alluvium of the Vellaur valley to the west, and extending as far as the Vellaur river about a mile north of Alatore. Although the thickness of the Ariyaloor group can be estimated with a nearer approach to probability than in the case of the two lower cretaceous formations, the estimate is still far from accurate. The dip of the beds is very low, rarely exceeding 2° to 3°, the general inclination being north-east, and the whole of the beds in all probability do not exceed 1,000 feet in Trichinopoly. Near Vriddhachellam they appear to be very thin, and in the neighbourhood of Pondicherry they are too obscurely exposed for any estimate of their thickness to be attempted. There is an apparent diminution of thickness to the northward as in the other groups, but this attenuation appears to be greatest near Vriddhachellam, and takes place less rapidly farther north, even if the beds are not thicker in that direction. The Ariyaloor beds, as has been already stated, frequently appear to pass into the Trichinopoly group at their base. They, however, overlap the lower groups both to the north and south, and there is, in places, an appearance of unconformity where they rest upon the Trichinopoly beds, nor is it easy to understand the very rapid diminution in the thickness of the latter to the northward without supposing that they had been partially denuded in pre-Ariyaloor times. As was noticed in the description of the Ootatoor group, the Ariyaloor beds rest upon the Ootatoors for a distance of rather more than 2 miles in the northern part of the Trichinopoly area, and still farther north the former were deposited directly on the gneiss. They also rest on the gneiss throughout the whole breadth of their outcrop in the south of the Trichinopoly area, and in the Vriddhachellam cretaceous tract, whilst in the neighbourhood of Pondicherry they are deposited to the eastward on the Valathavoor representatives of the Ootatoor group, and to the westward no beds are seen beneath them, the Cuddalore sandstones overlapping them completely. Throughout the Trichinopoly and Vriddhachellam areas, the Ariyaloor beds disappear to the eastward beneath the Cuddalore sandstones, which are unconformable to the cretaceous beds, and the latter are covered up by alluvial deposits in the valleys of the Vellaur and Ponniaur rivers intervening between the three areas, and also to the north of the Pondicherry area. The Ariyaloor beds appear to have been chiefly deposited in a tranquil sea of small depth, although the deposits are less characteristically littoral than those of the Trichinopoly group, and the evidence of the neighbourhood of land afforded by the occurrence of fossil wood is less abundant. The invertebrate fauna of the Ariyaloor group exceeds in

richness even that of the Ootatoor beds, no less than 365 species having been detected in the uppermost sub-division of the cretaceous rocks of Southern India. The Cephalopoda comprise 36 species, Gasteropoda 138, Lamellibranchiata 117, Brachiopoda 12, Bryozoa 23, Echinodermata 26, Anthozoa 10, Foraminifera 1, and Vermes 2. It is highly probable that this large number may be due partly to the circumstance that the Ariyaloor deposits comprise two groups differing somewhat in age.

41. *Deccan Trap.*—Whilst the upper cretaceous beds were being deposited on the south-eastern coast of India, the volcanic outbursts of the Deccan traps must in all probability have commenced. These rocks form one of the grandest masses of bedded traps to be found in the world, and present several very interesting problems. The Deccan traps consist of a great series of basaltic lava-flows, for the most part assuming the form of basalt; all either nearly horizontal, or presenting the appearance of having been so originally. They possess a vertical thickness of between 4,000 and 5,000 feet in some of the Sahyadry scarps, and probably where thickest amount to 6,000 feet at least. They cover an area roughly estimated at 200,000 square miles, and in all probability originally very much greater. The prevailing rock is some form of dolerite or basalt. Almost throughout their range, the Deccan traps may be recognised by the occurrence of the amygdaloidal basalts with green earth (glanconite), or of the porphyry with crystals of glassy felspar. Of the secondary minerals found in the trap, apophyllite is the finest. Its color is usually white, more rarely pink or green; some crystals are perfectly transparent, and one of the most magnificent associations of minerals to be found anywhere is seen when, as occasionally happens, perfectly clear, vitreous crystals of apophyllite of large size are inserted on a mass of orange stilbite. Some apophyllite crystals are as much as three and four inches across. One of the most remarkable characters of the Deccan traps is their persistent flatness or near approach to horizontality throughout the greater portion of their area. The separate lava-flows do not often exceed 15 feet in thickness. Sedimentary bands, frequently fossiliferous, have been found in several places interstratified with the lava-flows, and have become widely known and described as intertrappean beds. As to their origin, the evidence clearly shows that the traps were in a great part of subaërial formation, but their horizontality has not yet been thoroughly explained, because no such process is now going on. Nor have all the sources of the great volcanic series of Western India been ever approximately determined. It is probable that the traps flowed from vents without the formation of volcanic cones, as no traces of the inclined beds of such cones have been found; and the distinction may have been due to the greater fluidity and larger mass of ejected lava, and to its consequently increased power of transporting all the materials brought to the surface by igneous agency to a much greater distance from the point of emission. No sketch of the geology of Southern India would have been complete without mention of the Deccan trap, though the area proper does not touch this Presidency. Further, a single outcrop of trap occurs at Rajahmundry, and outliers are perceptible all down the Western Ghauts. The outcrops of trap near Rajahmundry are so remote from any other exposure of the Deccan volcanic series, being about 210 miles distant from the nearest point of the great Deccan area north-west of Sironcha, that some doubt would remain as to the identification, despite the similarity of mineral character, had not some of the typical fresh-water fossils of the Deccan intertrappean beds been discovered in the Rajahmundry area. The Rajahmundry outcrops occur on both banks of the Godavery, and consist of an interrupted narrow band of volcanic rocks, chiefly earthy dolerite and amygdaloid of the usual character, extending altogether for about 35 miles from east-north-east to west-south-west. On the left bank of the Godavery, traps are seen at Cautair of the map just north of Rajahmundry itself, and extend rather more than 10 miles to the east-north-east, resting upon metamorphic rocks whenever lower beds are seen. On the right bank the volcanic rocks appear in two areas, divided by a small alluvial valley; the larger extends for about 10 miles to the westward from Pangady, 7 miles west of Rajahmundry; and the smaller occurs a few miles still farther west. In these outcrops the beds of the volcanic series rest upon the jurassic rocks of the Ellore region. In both cases the strata overlying the trap are tertiary sandstones (Cuddalore group), and all the beds alike have a low dip to south or south-east. The whole thickness of the volcanic series at this locality nowhere appears to exceed about 200 feet, and in places it is not more than 100.

42. *Infratrappean.*—At the base of the traps and intervening between the basalt flows and the underlying jurassic sandstone, near the village of Dooddookoor, twelve miles west of Rajahmundry, about 50 feet of sandstone, white, yellowish or greenish in color, is exposed. The upper portion is calcareous, and, on the top, there is a band about 6 inches to 2 feet thick of sandy limestone abounding in marine fossils, the most abundant of which is a Turritella apparently identical with T. dispassa of the cretaceous Ariyaloor group. If not identical, the two species are very closely allied. A Nautilus, about fifteen Gasteropoda and eleven Lamellibranchiata accompany the Turritella, but not a single species, except Turritella dispassa, has been recognised as identical either with the cretaceous beds of Southern India or with the eocene fossils of the nummulitic group. The collections have not, however, been sufficiently compared to enable the species to be determined with certainty. Only one single species, too, Cardita variabilis, has been recognised as occurring also in the overlying intertrappean bed. Although the whole facies is tertiary, there is a remarkable absence of characteristic genera, and the chief distinction from the cretaceous fauna of the upper beds in Southern India is simply the want of any marked cretaceous form. The fauna is distinctly marine.

43. *Intertrappean.*—Upon the fossiliferous limestone described in the last paragraphs a flow of basalt is superposed, varying in thickness from about 30 to about 100 feet. There is an appearance of slight unconformity where the volcanic rock rests upon the sedimentary bed, the surface of the latter being slightly uneven, as if denuded, and the upper fossiliferous intertrappean zone is occasionally wanting. The variation in thickness of the basalt stratum may be due to its having been poured out upon an uneven surface, but it is not quite clear whether this unevenness was due to disturbance of the sedimentary beds before the outburst of the traps. That the denudation of the underlying formations can have been only partial is shown by the fact that they may be traced between 3 and 4 miles, the upper portion alone being locally absent. On the left bank of the Godavery near Rajahmundry itself, the infratrappean band has not been observed. The thickness of the lower flow of basalt cannot be clearly ascertained, but it is not less than 40 or 50 feet, and it is probably more. Above this lower flow on both banks of the Godavery there is found a sedimentary band, 12 to 14 feet thick at Cautair, where it only extends for about half a mile, and about 2 to 4 feet thick in the Pangady direction, where it has been traced for about 10 miles. The intertrappean bed consists of limestone and marl, and portions abound in fossils. Numerous quarries which have been opened near both Pangady and Cautair have afforded good opportunities for obtaining fossils, which are difficult to extract from the argillaceous limestone when it is first quarried, but weather out on exposure. About 30 or 40 feet above the fossiliferous limestone of Cautair, another sedimentary bed, consisting of yellow calcareous shale, is seen in one place. It is very thin, and no fossils have been found in it. The most marked feature of the fauna is its distinctly estuarine character.

44. Cænozoic Rocks—*Tertiary.*—The tertiary rocks of the peninsula cover but a small area, and are confined to a narrow fringe found in places in the neighbourhood of the coast. The ossiferous deposits of the river valleys are now considered post-tertiary, and the geological age of the laterite or iron clay which is found capping many of the Indian plateaux is quite uncertain, and it is therefore best to describe laterite rocks separately. It is probable that the peninsular area was land during tertiary, as it was for the most part during mesozoic and probably in palæozoic times. It may reasonably be inferred that during part of the early tertiary period India was united to Africa, and the union may have been continuous from the cretaceous period to miocene times. The course of the old continent may perhaps be traced by the Maldive and Chagos archipelagoes, and by the banks between the Mascarenhas islands and the Seychelles. That portions of the old land remained, broken up into islands, long after the connection had been severed, is probable from some peculiarities amongst the birds of the Seychelles and Mascarenhas islands; thus the genus Hypsipetes, a characteristically Oriental form, is represented in Madagascar, Bourbon, Mauritius, and the Seychelles; and Copsychus, an equally typical eastern genus, occurs also in Madagascar and the Seychelles. It is easily conceivable that birds should fly, or be blown, from island to island long after the distance was too great to be traversed by mammals. The circumstance that the mammalian fauna of the Oriental region shows less affinity with Madagascar than with that of the African continent, is perhaps due to Madagascar having been separated before the submergence of the land connecting Africa and India. The southern portion of the Indian Peninsula with Ceylon may have been united to the Malay countries in tertiary times, perhaps later than with Africa. This, however, is not clear: despite some remarkable points of affinity to the Malay fauna, there are very remarkable differences;

and when representative forms are found in Southern India or Ceylon and in the Malay countries, such forms are frequently, perhaps most frequently, generically distinct. One of the most singular cases of generic alliance is the occurrence of a species of Draco, a Malay genus of lizard, in Malabar; but this is exceptional. Most of the genera of Ceylonese and South Indian lizards and snakes are peculiar; and one family of snakes is confined to the sub-region and to some hill-tops in Southern India. So far as the sea bottom between Ceylon and the Malay archipelago is known, there is nothing to indicate a former continuity of land in this direction; and the similarity of the fauna may have another explanation. To the south in Travancore, for the first time in geological history, it is found that a marine deposit was formed in the miocene age; and it may perhaps be inferred that the southern portion of the western coast then first assumed something resembling its present outline. These are the only rocks in South India of which the tertiary age has been possitively determined. Of questionably tertiary age, as will be shown further on, are the Cuddalore sandstones of the east coast and their supposed equivalents in Travancore.

45. At intervals along the eastern coast of the peninsula, from the neighbourhood of Rajahmundry down to Cape Comorin and curving round north-westward into South Travancore (a distance of nearly 800 miles), a peculiar formation, consisting chiefly of sandstones and grits, is found underlying the laterite which forms a low slope on the edge of the coast alluvium. Their northward extension is not known, the coast north of Vizagapatam as far as the Chilka lake not having been examined geologically, but throughout Orissa no outcrops of the Cuddalore beds have been detected. This sandstone formation has received several local names, but has of late years generally been known as the Cuddalore sandstone, from being well developed in the neighbourhood of the station of Cuddalore on the coast, about 100 miles south of Madras. The greater portion of the Cuddalore group, throughout the area in which it is found, consists of gritty and sandy beds, sometimes highly ferruginous and colored of various tints of yellow, brown, red and purple, sometimes white or pale-colored, and not unfrequently mottled. In some cases the rock is argillaceous, and occasionally thin bands of clays or shales are interstratified. The beds are soft, loose-textured, and, as a rule, ill-consolidated, being rarely sufficiently compact to be used as building stone. Bands of conglomerate have been found. These beds have been traced throughout a large portion of the east coast. Their most northerly extension known is between Vizagapatam and Rajahmundry. From the neighbourhood of Rajahmundry the Cuddalore beds have been mapped at intervals for fully 500 miles to the southward along the coast. They usually form a low slope, dipping at a very slight angle towards the eastward or in the direction of the sea, and are, as a rule, much covered and concealed by laterite. To the westward they rest indifferently upon rocks of various ages, metamorphic, jurassic, or cretaceous, but always unconformably, and they very often terminate in this direction in a low scarp. To the eastward they disappear generally, with their capping of laterite, beneath the alluvium of the coast and occasionally, as near Cuddalore, they terminate in a small cliff. Their outcrop is repeatedly interrupted by the broad alluvial valleys of rivers, and in some places as for nearly 80 miles south of Madras, they appear to be wanting altogether, whilst in other parts of the country they form a broad tract raised above the general level, usually sandy and infertile, occasionally, as near Cuddalore, no less than 25 miles wide from east to west, but in general much less. From the paucity of sections and the extent to which the Cuddalore sandstones are concealed by laterite and sandy soil, their absolute thickness can nowhere be estimated with accuracy. The scarp in which they terminate to the westward is sometimes as much as 100 feet high, and they must be somewhat thicker than this, but it is doubtful if they attain any considerable thickness. They are perfectly undisturbed, and have all the appearance of being a comparatively late formation. The only fossils found in the Cuddalore beds consist of exogenous silicified fossil wood, some of which is coniferous, and has been described under the name of Peuce schmidiana. The genus Peuce is not acknowledged by all palæobotanists, and it appears too ill-defined to justify any con clusions as to the age of the rocks being founded upon its occurrence. This silicified wood is especially abundant at Trivacaray, about 14 miles west-north-west of Pondicherry, whence the name of Trivacaray grits applied by some writers to the local development of the Cuddalore sandstones. The trunks of trees occurring at this place are of large size, one having been found as much as 100 feet in length, whilst stems 15 to 20 feet long and 5 or 6 feet in girth are not uncommon. They occur prostrate, embedded in ferruginous grit. They are quite unconformable to the cretaceous beds, which they overlap in a most irregular manner, as near Pondicherry, where, near the town itself, they form the pleateau known as the 'Red Hills,' and rest on beds of the Ariyaloor group; 6 miles farther westward and west of the belt of cretaceous rocks, they are seen near Trivacaray resting on Ootatoor beds, whilst a few miles farther west they completely overlap the cretaceous rocks and rest on gneiss. Fragments derived from the cretaceous beds and containing cretaceous fossils have been found in the fort ditch at Vellam near Tanjore. Near Rajahmundry the Cuddalore sandstones similarly overlie the Deccan traps, the jurassic rocks and the gneiss. The origin of these rocks is as obscure as their date. Occurring as they do parallel with the coast, it is natural to suppose that they are of marine origin, and have been formed near the shore when the level of the land was somewhat lower than it now is, although the general contour of the coast was the same. But the complete absence, so far as is known, of all marine remains, is not easy to explain. Coarse sandstones and grits are usually unfossiliferous, but in beds which have undergone so little change, some casts of shells, at least, would probably be found in the more argillaceous strata if they were of marine origin. At the same time it is not easy to conceive any other probable mode of formation. It is difficult to suppose that the western coast of the Bay of Bengal can have formed part of a river valley in tertiary times, and it is equally improbable that stratified grits, sandstones, and conglomerates, like those of the Cuddalore beds, can be a form of subaërial wash. The Cuddalore sandstones have been assumed to be of tertiary age, but some doubt has been thrown on this idea by the finding of a section in South Tinnevelly, in which a small band of clayey sand full of sub-recent estuarine shells is included in a whitish gritty sandstone having the strongest possible resemblance to typical Cuddalore beds in Madura and other localities further north and at Nagarcoil in South Travancore. Unfortunately, petrological identity excepted, there is no evidence that this gritty sandstone is positively a representative of the Cuddalore series, else the question of its age might be taken as settled for good and all. The section in question is on the right bank of the Yellava odai (stream) close to its junction with the Numbiaur, about 16 miles north-east of Cape Comorin. The Cuddalore sandstones are represented in South Travancore by the Warkully beds, which are well on sea-faces of the cliffs near Warkully and at Kurrachee bay. They include some unimportant beds of lignite, which has not been found associated with them on the eastern coast, unless the lignites discovered by boring at Pondicherry belongs to the Cuddalore series.

46. The information yet published on the occurrence of tertiary beds near Travancore is scanty. Beneath the laterite, at a depth of about 40 feet from the surface, grey fossiliferous limestone (or dolomite according to others) is found, partly compact and partly loose and rubbly. This limestone is exposed beneath a laterite cliff near the coast 4 or 5 miles north-east of Quilon, and the same rock has been found in the neighbourhood of the town at a depth of about 40 feet in wells. Further south, near Varkalay, 12 to 14 miles south of Quilon, the cliffs on the coast expose, beneath the laterite, beds of brightly-colored sand and clays with bands of lignite. The sandy beds overlie the lignites and clays. The lignite beds abound in fossil resin and iron pyrites, both in lumps of considerable size. The limestone contains marine shells in abundance, amongst which the following species have been recognized:—Strombus fortisi, Cassis sculpta, Voluta jugosa, Ranella bufo, Conus catenulatus, C. marginatus, Cerithium rude, besides species of several other genera resembling forms found in the tertiary beds of Scinde and Cutch. All the mollusca identified belong to species occurring also in Cutch and Scinde, and, so far as is known, in beds of later date than the nummulitic limestone. No plants appear to have been collected from the lignite beds. Further examination of the Travancore beds and comparison of the fossils is, however, necessary before the age of these rocks can be considered as ascertained with sufficient precision. The interest attached to the subject is of course increased by the possibility of these fossiliferous tertiary deposits of Travancore representing the unfossiliferous Cuddalore sandstones; the relations between the two, whether they represent each other or not, will perhaps be determined by tracing both to the southward.

47. The name laterite is unfortunately given to several kinds of ferruginous rocks of different origin, both sedimentary and subaërial, and occupying very different positions. This has led to much confusion. Of the subaërial varieties, two principal ones may be named: (1) The high-level iron-clay or laterite of the Deccan derived from the decomposition of the highly ferruginous summit bed of the great trap series. This is not known within the limits of the Madras Presidency. (2) The laterites, so-called, of the Neilgherries and of the other higher mountains of the south, are simply derivative rocks formed by

the decomposition and alteration of moderately ferruginous (hornblendic) rocks in a moist climate. The so-called laterite of Ramandroog and the Bellary hills is mainly a breccia formed locally of the weather-crumbled fragments of the rich hæmatite schist rocks (which largely constitute the mass of the hills) cemented together by the action of water holding iron peroxide in solution. Subaërial iron-clay deposits are being found at the present day on various scales almost wherever ferruginous rocks are exposed to weather-action in the presence of sufficient moisture. The principal low-level laterite is the truly sedimentary coast laterite, which is a porous argillaceous rock with iron peroxide irregularly distributed throughout the mass, generally as hydrous peroxide (limonite), more rare as anhydrous peroxide, but frequently as a combination of both forms. When not strongly conglomeratic, or very sandy, typical laterite rock is very often permeated by numerous small tortuous tubes from quarter to one inch in diameter which, beneath the surface, are generally filled with soft sandy clay. These vermicular cavities give a singular pitted appearance to the surface of the rock they abound in. High-level laterite shows a similar structure, but is generally more homogeneous. Detrital laterite often passes by insensible graduation into ferruginous sandy clay or gravel. In the laterite of the eastern coast it is often conglomeratic along the western side of the band and graduates eastward into typical clayey laterite and finally into sands, which often occupy a wide spread before they dip under the coast alluvium. This is the case markedly in South Tanjore and Eastern Madura (Ramnaud). When the alluvium is sandy in character, as often happens, it is impossible to draw an exact boundary line between the two. In the neighbourhood of the Alicoor and Suttivaid conglomerates of Rajmahaul and north-west of Madras the laterite often forms enormously coarse conglomerates. In the north-eastern part of Madura District the laterite assumes of large areas the character of a homogeneous anhydrous clayey hæmatite remarkable for its richness in iron. A large native iron industry formerly existed in those parts, and seems to have perished as the forests were destroyed around. South of the Veigay river this great richness in iron rapidly disappears, and the gravels and sands which replace the clay become very poor in iron and of a pale cinnamon color. As soon as Travancore is entered the lateritic beds resume their richness in iron very markedly. The coast laterite of Malabar and South Canara has not been surveyed as yet.

48. Post-tertiary and Recent Formations. — In Europe a glacial epoch marks the passage from tertiary to post-tertiary. In India there is no evidence of such an epoch at this stage, but there may have been refrigeration. The occurrence of Himalayan plants and animals on the higher ranges of Southern India may be due to the retreat of these species in the first place towards the equator, and subsequently, as the temperature increased, to the higher parts of the hills. As examples, the occurrence of a Himalayan rhododendron, of a wild goat allied to a Himalayan species, and of several Himalayan land shells on the Neilgherry and other Southern Indian hills may be mentioned. The evidence of recent changes in elevation on the shores of the peninsula indicates a general rise of land. In places depression to a small extent has taken place; but this is unusual and apparently local. The west coast of Travancore and Malabar has in particular been raised. This upheaval corresponds to a much greater depression in the ocean beds to the south-west. All known post-tertiary deposits, except near the sea-coast, are of fresh-water origin, including the unconsolidated and undisturbed deposits of the river valleys. In the older valley deposits, as in the post-pliocene rocks of Europe, bones of extinct mammals are found together with recent forms of fresh water and terrestrial mollusca, whilst the newer gravels, sand, and clay contain only the remains of mammalian species identical with those now inhabiting the country. The works of men have now been found in two instances in Indian post-pliocene beds. The only mammaliferous cave deposit yet found in the peninsula is at Billa Soorgam, north of Bunganapully, in the Kurnool district. Kankar gravel or ghootin, the concretionary carbonate of lime in irregular nodules, occurs in river-beds and alluvial deposits, and is valued as a flux for iron-smelting as well as for building purposes.

49. *Coast Alluvium.*—Along the east coast from the delta of the Ganges to near Cape Comorin there is a broad belt of alluvial deposits, sometimes reaching to 50 miles, due chiefly to the detritus brought down by the rivers. It consists of sands and clays, with kankar, and, near the hills, pisolitic nodules of iron peroxide, the latter being in places sufficiently abundant to render the deposit a kind of laterite gravel. Gravels also occur, frequently more or less mixed with ferruginous concretions, and there is in many localities an apparent passage between the ferruginous gravel of the alluvium and the low-level form of laterite. At Madras and Pondicherry estuarine shells of recent species have been found in beds of clay and wells at from 5 to 20 feet down, or considerably above the present sea-level. They are so numerous at Madras as to be collected for burning into the fine lime called choonam there well known. Along the western shore of the peninsula there is no such continuous plain of alluvium as on the east coast; the ground between the Western Ghauts and the sea, where not hilly, consists generally of a gentle slope towards the coast, composed of rock, covered in many places by laterite.

50. Of traces of the existence of man in India, the earliest unquestionable one is the chipped implement discovered 'in situ' in the ossiferous gravels of the Nerbudda river associated with the remains of various mammals now extinct e.g., Ursus namadicus, Elephas namadicus, E. (Stegodon) insignis, Equus namadicus, Hippopotamus (Hexaprotodon) namadicus, H. (Tetraprotodon) nalceindicus, &c. Of equally high antiquity are probably the numerous chipped stone implements found in the east coast laterite, especially in the neighbourhood of Madras. They are made of quartzite with the Nerbudda specimen, and in shape and size agree wonderfully with the typical palæolithic flint implements of the West European river gravels. Unfortunately no other remains of man, or indeed any other organisms, have been found along with them, one single broken bone excepted, which was found in the Attrampaukum valley some 30 or 35 miles west-north-west of Madras. This bone Professor Boyd Dawkins, considers to be part of a human tibia of platycuemic form. Bones belonging to two human beings were found in the alluvium of the Goondlacumma river in Nellore District, a little east of the ford crossed by the great north road. They were reposed on the face of the Cliffy river bank of undisturbed clayey sand at a depth of 18 feet below the present surface, and must, from their position, have been of considerable antiquity. A few subfossil river shells of living species were found at the same level close by. No cranium was found, but one mandible was obtained in good condition and is now in the Geological Museum at Calcutta. The other finds were the larger bones of the upper and lower limbs. They present no speciality of structure. Palæolithic implements of quartzite have been found in considerable numbers in the neighbourhood of Royachoty in Cuddapah and of Roodraur in Kurnool. In both cases they appeared to have been washed out of fluviatile or lacustrine gravels.

51. *Cave deposits.*—The exploration of the ossiferous caves at Billa Soorgam in Kurnool District has unfortunately yielded no human bones out of the true cave-earth, but a well-made bone gounge and various cut bones and bits of stag-horn demonstrate beyond a doubt man's existence in those parts at an early age. He was probably on a level in point of civilization with the early neolithic men of the french bone-caves. The caves, as far as explored, show no signs of long-continued habitation by man or predatory animals, and the bones found appear to have been washed in from above by the small streams finding their way into the upper parts of the several caves. Most of the larger bones are fragmentary and many have been bitten and gnawed. The bones found have been only generically determined as yet except in a few cases, so it is impossible to say whether any belong to extinct species; but two genera there found—Rhinoceros and Equus—are not known to have occurred in South India within historic times. All the other genera are represented in the existing fauna of the Kurnool District. The larger mammalia found were Presbytis, Felis, Hystrix, Rhinoceros, Equus, Sacs, Rusa, Axis, Antelope, Partax, Bos and Gavæus. No stone implements were found in the caves.

52. *Soils.*—The two most remarkable surface formations of Southern India are the red soil, a sandy clay colored red by iron peroxide, and common on the metamorphic rocks; and the black soil or cotton soil or regar. The latter is a fine dark soil, highly argillaceous, somewhat calcareous, and very adhesive, resulting from the impregnation of certain argillaceous formations with organic matter, and probably covered at one time with luxuriant forest. The fertility of this soil is so great that some of the black-soil plains are said to have produced crops for 2,000 years without manure, without having been left fallow and without irrigation. On the other hand, some varieties of black soil, occurring near the coast, are comparatively infertile. Sand dunes, drifted by the wind, are found along the sea coast, where they form backwaters, and on the banks of rivers.

APPENDIX No. IV.

FAUNA OF THE PRESIDENCY.

INTRODUCTION.—The peninsula of Southern India forms part of the zoological region known as the "Oriental" or "Indian." The fauna of this region, more especially that of the purely Indian section of it, has numerous affinitives with that of the Ethiopian or African region, but still both have well-marked distinctive peculiarities. Amongst the mammals of Southern India, the only ones that can be regarded as cosmopolitan are rats and mice, and some bats of the family *Vespertilionidæ*. As might be expected, the number of birds occurring in Southern India, which are more or less common to all parts of the world, are more numerous. Some of these are hawks, owls, crows, swallows, pigeons, grouse, partridge, snipe, plover, kingfisher, herons, and rails.

2. MAMMALS.—The standard hand-book on the mammals of India is that of Dr. Jerdon, and its nomenclature will accordingly be followed in the following remarks:—

The mammalian fauna of Southern India is characterised by the possession of a peculiar lemur, the little *Loris*. The other genera found in Madras and characteristic of the oriental region are *Presbytis* and *Macacus*, species of monkeys; *Viverricula*, a civet cat; *Paradoxurus*, the toddy or tree cat; *Cuon*, the wild dog; *Platacanthomys*, a dormouse; *Cervulus*, a muntjac; *Portax*, the nilghye; *Tetraceros*, the four-horned antelope; *Antelope*, the true Indian antelope, and a species of *Elephas*, the Indian elephant.

Quadrumana.—South India is rich in quadrumana. It possesses three species of Langur, viz., the Madras, the Malabar, and the Neilgherry. The most widely-distributed and best-known monkey is *Macacus radiatus*, the species commonly led about for exhibition, on account of its tricks and agility. The curious little *Loris gracilis* is very common in the eastern forests of the peninsula, and is an outlier of the Madagascar fauna.

Cheiroptera.—The family of bats is represented by various genera, and the best known species is *Pteropus medius*, the *flying-fox*. Of the *Vampyridæ* four genera are represented, of the *Noctilionidæ* two, and of the *Vespertilionidæ* three, in the Madras Presidency.

Insectivora.—A very common shrew is that improperly termed the musk-rat, viz., *Sorexcœrulescens*, which is often found in houses and useful, as it destroys cockroaches and other insects. A small hedge-hog, *Erinaceus micropus*, is pretty common in some of the western districts, a species of *Tupaia*, a Malayan genus, exists in the Eastern Ghauts, and a *mole* has been discovered on the Pulneys.

Carnivora.—One of the most common animals of this group is the bear, *Ursus labiatus*, and although it feeds chiefly on insects and seeds, yet, when enraged, it is one of the most dangerous of all the denizens of the jungle to human life. A somewhat uncommon animal is the Indian badger, *Mellivora Indica*, but *Otters* and a *Marten* abound in certain parts of the country. The most notable beasts of prey are the tiger, the leopard, and cheetah. It seems probable also that the lion at one time existed, as figures of it are common on Booddhist sculptures executed about the dawn of the Christian era. The tiger, *Felis tigris*, abounds throughout the whole of the peninsula, but is being gradually pushed back by the extension of cultivation. Where game abounds the tiger does not usually destroy cattle, and it is only in exceptional cases that it becomes a man-eater and the terror of a district. The average length of a tiger from the nose to the tip of the tail is from 9 to 9½ feet, but some are longer. The leopard, *Felis pardus*, is more common than the tiger, and chiefly preys on game, wild pig, and monkeys. It is not very destructive to human life, and its victims are mostly old women and children. Its impudence is unbounded, as it often enters villages and even houses and tents to carry off dogs or goats. A curious variety of the species is the black leopard—a beautiful but vicious beast. A distinct species, much less common, is the cheetah or hunting leopard, *Felis jubata*. Several cats also exist, such as the *leopard cat*, the *large tiger cat*, the *lesser leopard cat*, *rusty spotted cat*, and the common *jungle cat*. The civets are represented by the ubiquitous *lesser civet cat*, the *Malabar civet cat*, the *toddy cat*, and the Ceylon brown *Paradoxurus* (from Kotagherry); and the ichneumons by the common *mungoos* and several hill species. Out of seven species of *mungoos* in India, five are peculiar to Madras. The genus *Paradoxurus* is characteristically Asiatic, but *Herpestes* is common to India and Africa. The other more notable carnivora are the red lynx, *Felis caracal*; the hyæna, *Hyæna striata*; and the members of the dog-tribe, viz., *Cuon rutilans*, the wild-dog; *Canis pallipes*, the Indian wolf; *Canis aureus*, the universal jackal; and *Vulpes Bengalensis*, the Indian fox.

Sirenia.—Herbivorous cetacea are represented by a solitary species *Halicore dugong*, the *mermaid* of the older mariners.

Cetacea.—Several species of *Dolphin* are common on the Madras coasts, and the *Indian fin-whale*, of which there is a complete skeleton in the Museum, is sometimes seen.

Rodentia.—The animals belonging to this order in Southern India are *squirrels*, *rats*, *hares*, and the *porcupine*. *Sciuridæ.*—The best known of these is the common squirrel, *Sciurus palmarum*. The largest is the Malabar squirrel, *Sciurus Malabaricus*. One of the most remarkable of the group is the flying-squirrel, *Pteromys petaurista*; it lives in dense forests, and by means of the parachute-like expansions of skin between its fore and hind legs is able to take prodigious flying leaps from tree to tree. There is also another flying squirrel, *Sciuropterus*, in Travancore. *Muridæ.*—One of the prettiest of the family is the jerboa-rat, *Gerbillus Indicus*, which lives on uncultivated sandy plains, and sits up on its hind legs like a kangaroo. The largest of the group is the pig-like, vagabond bandicoot, *Mus bandicota*. It swarms in towns and villages, and seems to take a special delight in wanton mischief. The European black and brown rats are also common. The other more remarkable species are the *mole rat* and the *tree rats*. Species of *Golunda*, *Platacanthomys*, and *Leggada* are peculiar to Madras, and *Platacanthomys*, which has spines on its back, is the only known species of its group.

The largest of the rodents is the porcupine, *Hystrix leucura*, which inhabits hilly districts, and is a great enemy to some cultivated plants, such as the potato. There is one here, the common *Lepus nigricollis*.

Edentata.—This order is represented by one species, *Manis pentadactyla*, the Indian scaly ant-eater. It is widely diffused, living amongst low rocky hills, but is not common. Owing to its powerful claws, which it uses in scraping and tunnelling, it is very difficult to keep in confinement. It is also difficult to feed, as it is nocturnal in its habits, and will only eat ants.

Pachydermata.—Of the hoofed animals, the largest and most remarkable is the elephant, *Elephas Indicus*, which inhabits the mountain forests of Coorg, Malabar, and Travancore. It differs specially from the African elephant in having smaller ears, 19 instead of 21 pairs of ribs, and 33 tail bones instead of 26. The elephant is gregarious and very destructive to crops and plantations. As a rule, it is timorous and avoids men, but at times a single male becomes a "rogue," and attacks every living thing that comes in its way. A few years ago, this noble animal was likely to be exterminated by shooting and capture in pits, but, under existing protective rules, it is again multiplying, and can never do so to an inconvenient degree, as plantations of various kinds have greatly reduced the extent of the primeval forests, in which the elephant used to breed and roam unmolested. The only other pachyderm in Southern India is the jungle-pig or wild boar, *Sus Indicus*, which is common on the plains and also on hills at all elevations.

Ruminantia.—This group embraces deer, antelopes, wild goats and wild cattle. The true deer with solid deciduous horns found in the peninsula are the samber, *Rusa aristotelis*, the spotted deer, *Axis maculatus*; the mouse deer, *Memimna*

Indica, and the barking deer, *Cervulus aureus*. The samber is a magnificent animal, and its pursuit is a favourite sport wherever it is found. It abounds both on the plains and the hills, but has been gradually driven away from some of its old haunts by shooting and extended cultivation. The most remarkable perhaps of the deer family of Southern India is the mouse-deer, *Memimna Indica*, which is generally under a foot in height and but 5 or 6 lb. in weight. It lives in hill forest up to 2,000 feet, and is mostly found in rocky places. It belongs to the musk-deer group, and has therefore no horns, but the male is furnished with canines. The antelopes, together with the goats and cattle, belong to the family *Bovidæ*, the members of which have permanent horns, consisting of a bony core and a horny sheath. The antelope sub-family embraces some of the most graceful of wild animals, and two Indian species the nilghye and four-horned antelope, differ from any of the various African forms. The members of the group found in Southern India are the large nilghye, *Portax pictus*; the Indian antelope, *Antilope bezoartica*; and the four-horned antelope, *Tetraceros quadricornis*. No capricorns or mountain antelopes extend to the peninsula, but we have the handsome *Hemitragus hylocrius*, the Neilgherry wild goat or "Ibex" of sportsmen. Of wild cattle we have but one species, *Gavæus gaurus*, the gaur or "bison" of sportsmen. It abounds in the dense forests of the Western Ghauts, the Pulneys and Anamullays, and is also found in Coorg, Wynaud, the Shevaroys, the hills about Vellore, the Bababoodens, and north of the Kistna along the Eastern Ghauts to Cuttack. The bull is larger than the cow, and has a hump. The gaur is gregarious and generally timid, but sometimes a solitary bull becomes dangerous, and a wounded bison will frequently charge.

3. Birds.—In referring to the avi-fauna of Southern India, it will be impossible to do more than glance at its leading features, as it embraces at least 380 species. Jerdon's "Birds of India" is the only complete handbook on the subject, but a great deal of information is also scattered through the pages of "Stray Feathers," a periodical conducted by Mr. Hume, late of the Bengal Civil Service.

Southern India, as regards its birds, possesses little or no zoological affinity with neighbouring regions. A large number of the genera represented consists of species which are either confined to, or very prevalent in, the oriental region. The most striking families are the gallinaceous birds, such as the peacock and jungle-fowl, splendid pigeons, the parrots embracing parrakeets and a lorikeet, the hornbills, numbers of cuckoos, wood-peckers and barbets, the bee-eaters, the sun birds, the mynas, the kingcrows and babblers.

Raptores or birds of prey.—To this group belong vultures, eagles, falcons, hawks, buzzards, harriers and kites, the *diurnal rapacious birds*, and the various owls, the *nocturnal birds of prey*. Of the former there are about 40, and of the latter 15 species in Southern India. The vultures are all foul-feeding scavengers, and of the four species the black vulture, *Otogyps calvus*, and white scavenger vulture, *Neophron percnopterus* are well known. There are three species of the genus *Aquila* besides other members of the *aquilinæ*, including the serpent eagle, *Circaetus gallicus*, and the osprey. Four falcons proper are common, and of these three were used for hawking when that noble sport was pursued. Kestrels and hawks abound, and the birds *Haliaster Indus*, the Brahminy kite, and *Milvus govinda* are ubiquitous. Of owls we have horned and hornless, and of the family the best known perhaps are the little owlet, *Athene Brama*; the screech owl, *Strix Javanica*; and the brown fish owl, *Ketupa Ceylonensis*.

Passeres or perching birds.—The nocturnal fissirostral birds in Southern India embrace five species of *Caprimulgus*, the night-jar or goat-sucker. The diurnal fissirostres are represented by swallows, trogons, bee-eaters, rollers, kingfishers, and hornbills. Swallows and swifts are rather numerous, and one of the most remarkable is the *Collocalia unicolor*, the Indian edible nest swiftlet which frequents the West Coast and Neilgherries. In all some 14 species of Hirundinidæ belong to Southern India. Of the trogons, remarkable for their beauty, only one sober-colored species, the Malabar trogon, is known in the south. The bee-eaters, also pretty birds, are more largely represented, there being three species of *Merops* and one of *Nyctiornis*. There is but one roller, *Coracias Indica*, popularly known as the blue jay. Seven species of kingfisher are known to inhabit the south, and the birds are common. Of the curious hornbills there are four species, but as they are retiring forest birds, they are, although common, rarely seen.

Scansores.—This tribe contains some birds of great beauty, viz., *parrots*, *wood-peckers*, *barbets*, and *cuckoos*, all of which are represented in Southern India. One familiar bird of the group is the rose-ringed *Parrakeet*, *Palæornis torquatus*, a favourite domestic pet on account of the facility with which it can be taught to imitate certain words. Another well-known bird is a barbet, *Xantholæma Indica*, called the *copper-smith* on account of the metallic-like *took-took-took* which it utters all day long, especially in the hot weather. Of the cuckoo family we have the koel, *Eudynamys orientalis*; the crow pheasant, *Centropus rufipennis*, and pied-crested cuckoo, *Coccystes melanoleucos*.

Tenuirostres.—Of *Tenuirostral* birds Madras contains some beautiful examples, such as the brilliant little *honey-suckers*, *nuthatches*, and the *hoopoe*.

Dentirostres.—This tribe is represented by the well-known shrikes, fly-catchers, thrushers, and warblers. Of the shrikes one of the most common is the bold kingcrow, *Dicrurus macrocercus*. One of the most beautiful birds in India is the Paradise fly-catcher, *Tchitrea paradisi*. Another handsome bird is the *whistling thrush* of Malabar, the notes of which resemble the whistling of a man or boy, who always seems to break down in the tune. Two black birds inhabit the south and the Neilgherry one, *Merula simillima*, has quite as sweet a song as the European species. Other well-known dentirostral birds are the babblers or "seven-sisters," *Malacocircus griseus*; bulbuls, species of *Hypsipetes*, and *Pycnonotus*, the orioles of golden plumage, and the fairy blue bird, *Irena puella*. Then come the warblers embracing *Saxicolinæ* stone chats, *Ruticillinæ* redstarts and bush chats, grass-warblers, wren-warblers including the skilful tailor-bird, *Orthotomus sutorius*, tree-warblers, and *Motacillinæ* wagtails and pipits. To these follow tits and accentors.

Conirostres.—This tribe includes a host of familiar bird forms, such as the crows, mynas and starlings, sparrows, amadavads, and larks. Of crows, the two best known species in the south are *Corvus splendens*, the common crow, and *Corvus culminatus*, the Indian corby. A remarkable bird, belonging to this species is *Ploceus baya*, the weaver-bird, whose marvellous nest is the admiration of every one. The common myna, *Acridotheres tristis*, and the hill-myna, *Eulabes religiosa* are also familiar objects. The sparrow, identical with that of Europe, also claims kinship with this large family, and so do the larks. The larks that sing best in confinement are *Mirafra cantillans*, a bush-lark abundant in the Carnatic, and the large-crested lark, *Galerida cristata*.

We now come to the *Columbidæ* or *pigeons*. Of tree pigeons the best known is the green pigeon, *Crocopus chlorigaster*, and the Imperial pigeon, *Carpophaga insignis*. Of ordinary pigeons and doves the most common are the blue-rock pigeon, *Columba intermedia*, various doves belonging to the genus *Turtur*, and the ground dove *Chalcophaps Indicus*.

Gallinæ vel Rasores or game-birds.—Asia is specially rich in gallinaceous birds, possessing the most typical groups containing the largest variety of forms of any part of the world. The peninsular rasores are divided into four families, viz., the *Pteroclidæ* or sand-grouse *Phasianidæ* or pheasants, *Tetraonidæ* or grouse and *Tinamidæ*. The true pheasants are all confined to Northern India. Of the sand grouse or rock pigeons as they are called by sportsmen, there are but two varieties found in the south, both of which belong to the genus *Pterocles*. The *Phasianidæ* embrace the following southern birds:—Pea-fowl, jungle-fowl, and spur-fowl. *Pavo cristatus* is a royal bird, and found generally in wooded districts. The red jungle-fowl of Bengal comes south to near the banks of the Godavery, but is a poor bird compared with the southern jungle-fowl, *Gallus sonneratii*. Two species of *Galloperdix*, spur-fowl, are common. There are no true grouse in India, the *Tetraonidæ* being represented by partridges and quails. The painted partridge is rarely seen, but the grey partridge, *Ortygornis*, is widely dispersed. Of quail there are eight species belonging to four genera.

Grallatores.—This order contains the bustards, plovers, snipe, rails and herons. The bustard, *Eupodotis Edwardsii*, has now become scarce, but the lesser florikin, another famous game bird, is still common in certain districts. Of plovers proper there are six species including the couriers, the double-banded plover confined to certain parts of Nellore and Cuddapah, and the golden plover. Two lapwings are very common, and we have a turnstone and crab-plover. The sarus crane is an occasional visitor, and we have the common and demoiselle cranes. The wood-cook is an annual visitor to some of our hill ranges, and the wood-snipe is not uncommon. The common jack and painted snipes are all well known and common, and so are stints, sand-pipers, and green shanks. A water-hen and rail abound. There are four storks, the most remarkable of which is the adjutant, *Leptoptilos argalus*, rare in the south, but common in Calcutta, where it is protected as a scavenger. There are various herons and egretts including the paddy-bird, *Ardeola leucoptera*. The bittern of Europe, *Botaurus stellaris*, was lately found near Adony, and there are various species of ibis.

Natatores.—To this family belong ducks, flamingos, geese, whistling teal, grebes, gulls, terns, tropic-bird, pelican, cormorants, and the darter, all of which are represented and most of them family birds.

4. Reptiles.—There are two hand-books on the reptiles

of India, viz., Gunther's large illustrated work, and Theobald's descriptive catalogue.

Of the lizards of the peninsula the genera most characteristic of the oriental region are *Eublepharis* and *Draco*. Of snakes the genera *Cynophis* and *Passerita* are peculiar to Southern India and Ceylon, while the genera *Naga*, *Bungarus*, *Simotes*, *Trimeresurus*, and *Lycodon* are all peculiarly oriental. But the most notable family is the *Uropeltidæ*, rough-tailed earth snakes, the members of which are confined to Southern India and Ceylon.

Turtles, Lizards, &c.—The Chelonian reptiles are fairly represented in the peninsula. The most notable of the *land tortoises* is *Testudo elegans*, and the most common of the fresh-water species is the fetid *Melanochelyis trijuga*. *Emydavittata*, a terrapin, which is eaten, abounds in tanks and wells and is supposed to purify the water. The best known turtle is *Chelonia virgata*, the *green* or *edible turtle*, for which the loggerhead *Caouna olivacea* is sometimes substituted. The hawk's bill, *Caretta squamata*, which furnishes tortoise shell, also frequents the coast. Of living reptiles the most formidable are the aquatic saurians, the crocodiles of the Old, and alligators of the New World. Three species of crocodile are found in Southern India and all of them attain a large size, and are very destructive to man and beast. On the east side of the peninsula they are much less common than in former years, but they still swarm in the rivers and backwaters of Malabar. Of the land saurians the most remarkable is the lizard-like *Monitor*, *Varanus dracæna*, which attains a length of four feet and is eaten by natives. The *Lacertidæ*, ground lizards, have representatives of two genera, viz., *Cabrita* and *Ophiops*. The Geckos, the pretty little lizards, some of which are common in dwelling-houses, have representatives of at least four genera containing over 24 species, and all of them, except *Eublepharis*, can run up a perpendicular surface. Of the genus *Gymnodactylus* alone there are 17 species. One of the most curious of lizards is *Draco Dussumieri*, which is furnished with a parachute-sort of expansion of skin on each side of the body, which gives it the appearance of the fabulous dragon. The most common lizards out of doors are those known under the popular term of blood-suckers. Most of these belong to the genus *Calotes*. The true chameleon also exists, but is not very common.

Snakes.—Although snakes are common and the number of species considerable, fortunately the larger proportion of them is non-poisonous. Out of about 70 species of land snakes belonging to Southern India only about 13 are poisonous, and some of these are small and not very dangerous, and others comparatively rare. Of the sea snakes some 40 are known to frequent the Bay of Bengal, and it may be said in a word that the whole of this family, the *Hydrophidæ*, are very venomous. Of poisonous colubrine snakes the most notable are the *Cobra*, the *Krait*, *Bungarus cæruleus*, and *Bungarus fasciatus*. There are further three poisonous species of *Callophis*, all of which live in hill forests and are not common. The *carpet snake*, *Lycodon aulicus*, which resembles the Krait, is harmless, but it would be awkward to mistake a *Krait* for a *Lycodon*. Of the vipers the most dangerous is the Russell's snake, *Daboia elegans*, the *Tic polonga* of Ceylon. It is a very sluggish snake and hisses loudly like a goose when enraged. The other viperine snakes are the small *Echis carinata*, a common but not very deadly snake, and hill species of *Trimeresurus*, *Halys* and *Hypnale*. It will thus be seen that poisonous species are not numerous, and that the native and popular ideas on this head are very erroneous. Of the curious subterranean blind snakes, *Typhlopidæ*, only one species is known in Southern India, *Onycocephalus acutus*. The whole of the Indian *Uropeltidæ*, *rough-tailed earth snakes*, are, as already stated, peculiar to Southern India and Ceylon; and of *Rhinophis* Madras has 2 species, of *Silybura* 7 species, of *Plectrurus* 6 species, and of *Melanophidium* 3. Of the *Calamaridæ* only one species belongs to the peninsula, but of the *Filleted ground snakes*, *Oligodontidæ*, there are 8 species belonging to *Oligodon* and *Simotes*. Of the active *Colubridæ* 12 species are South Indian, and belong to the genera *Ablabes*, *Odontomus*, *Cynophis*, *Ptyas*, *Tropidonotus*, and *Zamenis*. The *Ptyas* or *Dahman* is the "female cobra" of the Tamil people, but it need hardly be said that it is harmless and in no way related to the cobra. Of river snakes there are two species, *Cerberus* and *Hypsirhina*. Of common tree snakes we have 2 species, a *Dendrophis* and *Chrysopelea*, and of long-nosed tree snakes 3. The most common of the latter is the pretty and well-known, long-nosed, green *Passerita mycterizans*. There are also 2 broad-headed tree snakes of the genus *Dipsas*. There is a family, *Lycodontidæ*, furnished with a fang-like tooth, but the four species belonging to *Lycodon* are quite harmless.

5. AMPHIBIANS.—There are two apodous amphibians of the family *Cæcilidæ*, viz., *Cæcilia* and *Epicrium*, which burrow in the ground, and true frogs, tree frogs and toads are all abundant. Of the frogs, *Ranidæ*, the chief genus is *Rana*, but *Pyxicephalus* and others are represented. The bull-frog, *Rana tigrina*, is very common, and one of the most extraordinary species is *Cacopus globulosus*, which looks like a ball with head and limbs projecting. *Diplodelma ornatum* is a small frog which appears in great numbers after rain. The pretty tree frogs belonging to the *Discodactyles* are very numerous and mostly pertain to the following genera:—*Polypedates*, *Callula*, *Hylorana*, *Rhacophorus*, and *Ixalus*. To the last named genus belongs the curious tinkling or copper-smith frog of the Neilgherry plateau. Toads of the genus *Bufo* are very abundant, and the common species is *B. melanostictus*.

6. FISHES.—There are strong affinities between the African and Indian fish faunas, and the Indian region also shows marked Malayan relationships in some of its forms. The only complete work on the subject is Day's "Fishes of India," but its price puts it out of the reach of ordinary students. A great deal of valuable information regarding the geographical distribution of fishes, &c., will also be found in Gunther's "Study of Fishes," which has been followed in the arrangement of the following remarks:—

In noticing the Ichthyology of the Presidency it will be convenient to refer to the fishes under three heads, viz., *fresh-water fishes*, *brackish-water fishes*, and *sea fishes*.

Fresh-water fishes.—The true fresh-water fishes of the whole world belong to 39 groups or families containing 2,269 species, and of these, 9 groups with about 115 species are represented in Southern India. The following is a list of the fresh-water fishes of this section of the Indian zoological region:—

	Species.
1. *Percidæ*—	
Ambassis	3
2. *Nandidæ*—	
Nandus	2
3. *Labyrinthici*	3
Anabas	1
Polyacanthus	1
Trichogaster	1
4. *Ophiocephalidæ*—	
Ophiocephalus	7
5. *Mastacembelidæ*—	
Mastacembelus	2
6. *Chromides*—	
Etroplus	2
7. *Siluridæ*—	
Silurus	2
Pseudeutropis	2
Macrones	7
Other genera	4
8. *Cyprinodontidæ*—	
Haplochilus	2
9. *Cyprinidæ*—	
Cirrhina	2
Labeo	8
Barbus	26
Rasbora	2
Nuria	2
Amblypharyngodon	3
Danio	3
Barilius	5
Osteobrama	3
Chela	5
Nemachilus	9
Cobitis	1
Other genera	7

There are thus, roughly speaking, about 115 species of fresh-water fish in Southern India belonging to typical families, exclusive of some belonging to hill ranges, and to families more properly marine, such as *Gobius*, *Belone*, *Megalops*, and *Murænidæ*. The groups most strongly represented are, it will be observed, *Cyprinoids* and *Siluroids*, which are therefore characteristic of this region.

Brackish-water fishes.—Of the more notable of these, 5 belong to the *Percidæ*, viz., *Lates*, *Lutianus*, *Ambassis*, *Therapon* and *Sciœna*. There are 1 *Polynemus*, 5 Mullets (*Mugil*), 4 *Clupeas*, 1 *Chanos* and 1 *Rhynchobdella*. Mullets and Herrings therefore preponderate. At the same time it must be stated that it is somewhat difficult to draw the line in speaking of brackish-water fish, as some of them at times live entirely in the sea, while others occasionally reside in fresh water.

Sea fishes.—These are very numerous, and only representatives of the chief families can be referred to.

Berycidæ.

Percidæ represented by Lates, Serranus, Genyoroge, Mesoprion, &c.

Pristipomatidæ represented by Therapon, Pristipoma, Diagramma, Gerres, Scolopsis, Synagris, &c.

Mullidæ.
Sparidæ represented by Pagrus, Chrysophrys, &c.
Squamipinnes represented by Chætodon, Heniochus, Holacanthus, Scatophagus, &c.
Cirrhitidæ.
Triglidæ represented by Pterois, Apistus, Minous, Platycephalus, &c.
Trachinidæ represented by Uranoscopus, Sillago, &c.
Sciænidæ represented by Sciæna, Corvina, Otolithus, &c.
Polynemidæ.
Scombridæ represented by Scomber, Thynnus, Cybium, Stromateus, Coryphæna, &c.
Carangidæ represented by Caranx, Chorinemus, Trachynotus, Equula, &c.
Xiphiidæ represented by Histiophorus.
Gobiidæ.
Teuthididæ.
Pomacentridæ.
Labridæ represented by Cossyphus, Julis, &c.
Pleuronectidæ represented by Pseudorhombus, Synaptura, Cynoglossus, &c.
Siluridæ represented by Bagrus, Arius, &c.
Scopelidæ represented by Saurus and Saurida.
Scombrescoidæ represented by Belone, Hemiramphus, &c.
Clupeidæ represented by Clupea, Pellona, Elops, &c.
Syngnathidæ represented by Syngnathus, Hippocampus.
Sclerodermi represented by Triacanthus, Balistes, Monacanthus, and Ostracion.
Gymnodontes represented by Tetradon, Diodon, &c.
Carchariidæ represented by Carcharias, Galeocerdo, Zygaena.
Scylliidæ represented by Stegostoma, &c.
Pristidæ represented by Pristis.
Rhinobatidæ represented by Rhynchobatus, Rhinobatus.
Torpedinidæ represented by Narcine.
Rajidæ represented by Platyrhina.
Trygonidæ represented by Trygon.
Myliobatidæ represented by Myliobatis, Rhinoptera, Ceratoptera, &c.

As regards edible species, the native population, as a rule, consume nearly everything from sharks to perches, with the exception of some of the Lophobranchii and Plectognathi. The favourite sea fishes at European tables in Madras are—

Seer = Cybium guttatum.
C. commersonii.
Whiting = Sillago domina.
S. sihama.
Pomfret = Stromateus atous.
S. niger.
Sole = Species of Liachirus, Synaptura, Æsopia, Plagusa and Cynoglossus.
Mullet = Mugil 3 species also found in brackish waters.

7. Mollusca.—The knowledge of the South Indian mollusca is not very extensive, there being no special manual on the subject to which the student can refer. On the Coromandel Coast the surf is generally too heavy to admit of the location of many shells, and it pounds the delicate species to pieces. At Tuticorin the pearl oyster, *Meleagrina margartifera*, has been fished for from time immemorial, and so has the sacred chank *Turbinella rapa*. The land shell fauna of Southern India is characterised by the number of species of *Helices*, and the prevalence of *Bulimulus* and *Cyclophorus*. The freshwater branchiferous molluscs are numerous and belong to various genera, but the bi-valves are common *Unios* and a few other species.

The *Cephalopoda*, represented by the cuttle-fishes, embrace but few species, and the same may be said of the *Pteropods* which frequent the ocean. Two species of *Ianthina*, an oceanic snail, are known. Of the *Gasteropods*, consisting of sea and land snails, whelks, and limpets, there are numerous species. The order *Prosobranchiata*, including Siphonostomata or carnivorous gasteropods and Holostomata or sea snails, embraces various South Indian species. The section Siphonostomata contains such shells as Strombus, Murex, Conus, Oliva, Cypræa, &c., and the Holostomata section, Natica Cerithium, Melania, Paludina, Turbo, &c.

Of the order *Ophistobranchiata* or sea-slugs we have some 6 or 7 species belonging to Torntella, Bulla, and Dolabella. In the order *Pulmonifera*, which embraces all the land shells and other air breathing molluscs, there are numerous species belonging to Helix, Bulimus, Cyclotus, Pterocyclos, Cyclophorus, Vitrina, Streptaxis, Achotina, Cyathopoma, Jerdonia, &c. Helix ampulla and Cyclophorus Nilagiricus are rare shells, and only found on the western slopes of the Neilgherries. The bi-valve shells, constituting the *Conchifera*, contain oysters, scallops, mussels and cockles. The *Asiphonida* group of these embraces Ostrea, Aviculâ, Mytilus, Unio, &c., and *Siphonida* includes Cardium, Tridacna, Cytherea, Circe, Tellina, Sylen, Pholas, Teredo, &c.

8. Insects.—There is no hand-book on Indian insects and descriptions of them are only to be found in incidental notices in general works and periodicals. At present a manual on the butter-flies by Marshall and de Niceville is in course of publication, and when completed will be of great assistance to those desirous of prosecuting this branch of natural history.

Coleoptera.—The most characteristic families of Indian beetles are the *Cicindellæ* or tiger-beetles, the *Carabidæ* or ground-beetles, the *Scarabæidæ* including *Lucanidæ* or stag-beetles, the *Longicornes*, and the *Buprestidæ*. Of the carnivorous tiger-beetles, there are several species peculiar to Southern India, and the white-spotted ground-beetle, *Anthia* 6-*guttata*, is found below trees every where. Various species of large sombre-colored *Scarabæus* beetles make themselves disagreeable by flying on the table at night, and the Atlas beetle, a *Dynastes*, is at times seen. Magnificent specimens of stag-beetles are not uncommon, more especially in the western parts of the country. The species of Longicorns are numerous, and one, the notorious coffee-borer, *Zylotrechus quadrupes*, was likely to entirely put an end to coffee culture in Madras, until it was pointed out by Dr. Bidie that the insect did not thrive in coffee cultivated under shade. The most splendid of all the *Buprestidæ* are found in India, and the golden and green wing covers of some species are used for ornamenting dresses and embroidery. *Elateridæ* are also represented by some fine species.

Orthoptera.—Troublesome members of this sub-order are the cockroaches, species of *Periplaneta* and *Blatta*. The carnivorous *Mantidæ* or leaf insects are very common, and some of them present a most marvellous resemblance to leaves. Not less wonderful, but less common, are the vegetarian *Phasmidæ*, the stick-insects or spectres, which simulate leafless twigs or bits of stick. Grasshoppers are very common, and in certain seasons the locust, an *Acridium* (*Œdipoda*), appears in vast hosts and causes great damage to crops. The noisy crickets, and the mole-cricket, *Gryllotalpa*, are widely distributed. One remarkable orthopterous insect of Southern India is *Schizedactyla monstrosa*.

Neuroptera.—Splendid specimens of the Dragon flies, *Libellulidæ* may be seen hovering over water, but the best known insects of this order are the destructive *Termites* or white-ants, species of *Termes*.

Hymenoptera.—Of this sub-order perhaps the most familiar members are the mason-wasp and carpenter-bee. The former, *Pelopæus coromandelicus*, at the beginning of the hot weather becomes busy in houses building up cells of clay, in which it places its ova and caterpillars, narcotised by being stung, on which the young wasps may feed. The carpenter-bee, a species of *Xylocopa* is very destructive to timber by excavating a tunnel in which to deposit its eggs. The honey bees of Southern India belong to 4 species and 3 varieties. The most common species are *Apis indica* and *Apis floralis*, and in some districts *Apis nigrocincta*, all small bees. The minute mosquito bee is said to be a variety of *A. nigrocincta*. The large and irascible rock bee is *A. dorsata* or one of its 2 varieties *testacea* and *zonata*, the stings of which often prove fatal to animals, and sometimes to men. Of stinging ants, *Myrmicites*, 6 species of *Atta* are found, and one of these *Atta minuta* is common in the Carnatic. The other South Indian species belong to *Ocodoma Eciton* and *Myrmica*, most of which are widely distributed. The tribe *Ponerites* is represented by 3 genera—*Odontomachus*, *Harpegnathos*, and *Ponera* embracing 8 species. Of the *Formicites* or true ants, there are at least 20 species belonging to the genus *Formica*.

Lepidoptera.—This section of the insect fauna is very copious, embracing a large number of species. Taking the specimens of an industrious collector as indicative of the relative numbers of the several families, the following may be adduced. The *Danaidæ* are widely distributed and common, and embrace a fair number of species. *Satyridæ* and *Elymniideæ* are less common, and the *Morphidæ* are not represented. *Mymphalidæ* and *Lycænidæ* are very numerous, and so are *Papilionidæ*. In the last-named family there are some very handsome species. The *Hesperidæ* are represented by at least 12 species. Moths are also abundant, and some very fine specimens, including the Death's head, belong to the *Sphingidæ*. Of the *Zygænidæ*, Burnets, *Agaristidæ*, *Uranidæ*, or Pages and *Ægeriidæ*, or clear wings, there are various species.

Of the silkworms, the most common is the Tusser-moth, *Antheræa mylitta*, but its cocoons are not collected or utilised. *Attacus atlas*, the magnificent Atlas moth, is also found, but not common. *Actias selene*, also a large moth, is more common. It is of a milky blue color, has a long tail, and lives chiefly on the *Odina Wodier* trees.

Diptera or flies are very abundant. The ordinary house flies and blue bottles belong to the genus *Musca*, the mosquito is *Culex*, and the flea a *Pulex*. Little attention has been paid to this class of insects, and there can be no doubt that a vast number of new species await the industrious collector.

Rhyncota.—The shield and plant bugs are well known in Southern India. Some of the former, such as the *Callideæ* are of great beauty, their scutellium, which gives them the appearance of beetles, showing brilliant metallic tints. The "green-bug," which emits an offensive odour, when irritated, belongs to this family; the bed-bug is *Acanthia lectularia*. The *Nepa* or water scorpion is a large-winged brownish flat insect, which sometimes flies into houses at night. The sub-order Homoptera includes some interesting Indian insects, such as the *Cicada* or knife grinder, the splendid *Fulgora* or lantern-fly, the *Aphididæ* or plant-lice (to which belongs the terrible *Phylloxera vastatrix* of France), *Coccus lacca*, the lac-insect. The coffee-bug, a destructive pest, is *Lecanium Caffeæ*.

9. Arachnida.—This class includes spiders, scorpions, mites, &c. Some of the most formidable looking of the spiders belong to the genus *Mygale*, which prey on insects of various kinds, such as cockroaches, and even attack lizards, and, in some parts of the world, small birds. The body of a large mygale is as much as 3 inches in length. Numerous true web-making spiders, *Epeiridæ*, live out of doors, and some of them make very strong snares. The wandering Saltigrade spiders, *Salticidæ*, which hunt their prey like a cat, are common, and so are the wolf spiders, *Lycosidæ*, which attain a considerable size, and carry their ova about with them in a globular cocoon attached to the abdomen. Some of the crab-spiders, which frequent flowers, often exhibit protective colors, and when alarmed feign death. They are exceedingly common on tropical plants. The house spider, a species of *Tegenaria*, is well known, and so is the allied spider that spreads out its web on the grass around a funnel-like tube which forms its den. The latter probably belongs to the genus *Agelena*. A trap-door spider is common about Gooty, and another has been found at Ootacamund. A beautiful small insect, *Trombidium*, belonging to the *Acaridea* or mites, is very common on the plants at certain seasons, and, on account of its beautiful coat which simulates scarlet velvet, is often supposed to be a cochineal insect! Some species of this group, *Trombidiidæ*, such as *Phytopus*, and red spider *Tetranycus*, are very injurious to plants. A mite, *Demodex folliculorum*, which lives in the sebaceous follicles of man, causes mange in the dog, and the eyeless *Sarcoptes scabiei*, which produces itch, is only too well known in the oriental region. A curious insect belonging to the *Phalangidea* or shepherd-spiders is seen in some parts of the country. It has a small body but very long legs, and is generally found in clusters of 50 or more which look like a bunch of hair. It belongs to the genus *Phalangium*. The insect called *Jalamandalum* by natives, and to the bite of which they attribute highly poisonous properties, appears to be in some districts a *Mygale*, and in others the *Galeodes* also a most forbidding looking and pugnacious arachnid. A very much maligned and ill-used insect is the *Fish-poochie*, a species of *Lepisma*, so often seen in books, where in company with a *Chelifer*, it preys on the enemies of literature, being carnivorous. A remarkable animal belonging to the genus *Tarantula* of Fabricius is the *Thelyhonus*. It looks like a scorpion without a tail, and the bite of some of the South American species is poisonous. The Indian *Thelyphonus* is very combative and ferocious looking, and it is probable that, as in the spiders, its falces is perforated and connected with poison glands. The true scorpions are common everywhere, but more especially in the drier districts, such as Kurnool. The large black scorpion, common in Madras and other parts of the country, is the *Buthus afer*. It sometimes attains a length of 6 inches, and its sting, if not fatal as stated by natives, at any rate causes intense depression bordering on collapse, and very severe pain. A considerable number of deaths is sometimes said to occur in Kurnool from the sting of a middle-sized, streaked, brownish scorpion, *Androctonus quinquestriatus*. The species of Androctonus, "Man-killer," are chiefly African, and curious to say the natives there entertain the belief that their sting is fatal to life. The little red scorpion, which frequents houses, is a species of *Scorpio*. Scorpions are not unmitigated evils, as they prey on insects which they kill by stinging them.

Myriapoda.—Some of these, belonging to the *Chilognatha* or millipedes, are quite harmless. To this section belong the species of *Julus*, large, hard-crusted, glistening, black-colored animals, which crawl about in gardens, and coil themselves up like a watch-spring when touched. A number of species of "myriapods" belongs to the *Geophilides*, which live in flower-pots and under stones, where they prey on decomposing vegetable and animal matter. The most formidable of the family are the *Scolopendridæ*, "Centipedes," the bite of which is very venomous. One species of *Scolopendra* attains a length of 10 or 11 inches, and smaller ones frequent dwellings.

Crustacea.—Of the *Xiphura*, there is one genus, *Limulus* the king crab, which existed in the Oolitic period. The head and thorax are united and protected by a large shield-like carapace. All the other genera of this order are fossil. There is one genus *Squilla*, belonging to the *Stomatopoda*, which looks somewhat like a big aquatic mantis. The *Decapoda* embrace a number of South Indian genera. To the *Macrura* section of the order belong prawns, species of *Penæus*, forms of *Scyllaridæ*, such as *Thenus* and the beautiful craw-fish *Palinurus*. In the *Anomura* group we find *Pagurus*, the *Hermit-crab*, *Hippa*, a beetle-like crustacean, and *Dorippe*. The *Brachyura* group embraces a number of Madras genera, viz., *Dromia*, *Philyra*, *Leucosia*, *Calappa*, *Matuta*, *Plagusia*, *Grapsus*, species of *Ocypoda* and *Cardisoma* land crabs, and various species of *Lupa*, *Portunus*, and *Scylla*, edible sea-crabs. The swift-footed sand crab seen on the shore is an *Ocypoda*, and the "calling crab," a *Gelasimus* with one big arm which it waves aloft, is common in the banks of canals.

APPENDIX No. V.

FLORA OF THE PRESIDENCY.

Literature of South Indian Botany.—The earliest work on the Flora of Southern India is the "Hortus Malabaricus" of van Rheede, a Dutch Governor of Malabar. It gives the vernacular names as also descriptions and excellent figures of 794 plants, and was published at Amsterdam from 1686 to 1703 in 12 folio volumes. The culture of scientific botany in the south, however, began with Koenig, a Danish physician and pupil of Linnæus, who resided at Tranquebar in the latter end of the eighteenth century. Stimulated by his example, a number of others began to cultivate the science, amongst whom may be mentioned Buchanan Hamilton, Heyne, Rottler, and Roxburgh. The last named was the first to describe accurately and arrange in a systematic work the vegetable riches of the peninsula. His "Coromandel Plants," a splendid work, was published by the Honorable East India Company from 1795 to 1819, and consists of three folio volumes, containing 300 colored plates. The "Flora Indica," which was left in manuscript at his death in 1815, was subsequently published in 1832, and for terseness and accuracy of description has never been surpassed. But the most voluminous and distinguished author on the botany of this part of India was Dr. Wight. The "Prodromus Floræ Peninsulæ Indiæ Orientalis" by Wight and Arnott, containing descriptions of nearly 1,400 species, appeared in 1834. This was followed by "Illustrations of Indian Botany," which contain 182 colored plates with a great amount of information on the natural orders, and were published in 2 quarto volumes from 1838 to 1850. This again was succeeded by the "Icones Plantarum Indiæ Orientalis," which extend to 6 quarto volumes, and give figures and descriptions of 2,101 plants. He also produced the "Spicilegium Neilgherrense" containing colored illustrations of the more striking Neilgherry plants, and much valuable information regarding the flora of that mountain range. Besides these, he published several minor works and numbers of botanical papers in various periodicals. Subsequent to Wight, the chief contributors to the literature of South Indian Botany have been Sir W. Elliot, Dr. Cleghorn, and Colonels Drury and Beddome. In 1859, the first named of these published his "Flora Andhrica," a list with the botanical and vernacular names of the plants growing in the Northern Circars. Dr. Cleghorn's chief work is the "Forests and Gardens of Southern India." Colonel Drury compiled a "Hand-book of the Indian Flora," in 3 volumes 8vo, and the "Useful Plants of India." Beddome's works consist of the "Flora Sylvatica," 2 volumes 4to, "Ferns of Southern India, 1 volume 4to, "Ferns of British India," 1 volume 4to, and "Icones Plantarum," 1 volume 4to. The labors of these distinguished pioneers having paved the way towards a complete knowledge of peninsular plants, the "Flora of British India," edited by Sir J. D. Hooker, now in course of publication, gives a lucid summary of all existing knowledge, establishes the genera and species on a sound and philosophical basis, unravels the hitherto perplexing synonymy, and affords an admirable compact guide for the working botanist.

2. *Climate of Southern India as affecting vegetation.*—The conditions which chiefly affect vegetation are temperature and moisture, the latter being the more active agent as regards the distribution of plants. Practically, the limits of the Madras Presidency may be said to lie between 8° and 20° north latitude, so that it is entirely within the tropical zone. The normal mean temperature at the equator is under 80°, and scarcely diminishes between that and the 10th degree of north latitude; but from 10° to 20° there is a reduction of about 2½°. From March till the end of September, or during the summer months, the southern portion of the peninsula is very hot, and from October till February, the winter months, it is comparatively cool. Two periodical winds, viz., the south-west and north-east monsoons, chiefly influence the rainfall. The former begins about May and ends about the autumnal equinox, and being a sea wind is very rainy. The north-east monsoon sets in on the Coromandel Coast in October, but does not contain much moisture, and the rain stops long before the end of the monsoon. The hot season in Southern India has much the same effect on vegetation, as winter has in a temperate climate. Herbaceous plants wither and disappear, trees and shrubs drop their leaves, and in many cases the young foliage remains in the bud till quickened by rain. When the rain does come, the effect is almost magical. In less than 24 hours the scorched brown plain is carpeted with green, and the bare trees are quickly mantled with the young leaves, which sometimes, as in the tamarind, are of a golden green, and in the morning light glorious beyond description. At the same time animal life is stirred into activity. Sportive insects hover over newly-opened flowers; swarms of frogs render night hideous by their incessant croaking, and every ditch and pool teems with fish. For present purposes the area of the peninsula under the Government of Madras may be divided into a *dry*, a *moist* and *very moist regions*. The *dry region*, with a rainfall under 30 inches, embraces some of the inland and coast talooks of the Kistna district, the northern portion of Nellore, a large section of Kurnool, nearly the whole of Cuddapah, all Bellary and Anantapore, parts of Salem and Trichinopoly, most of Coimbatore, and the eastern portions of Madura and Tinnevelly. In the districts included in the dry region, rain falls in both monsoons in occasional showers. The *moist region*, with a rainfall over 30 inches, embraces, except in a dry tract between Baupatla and Ramaputnam, the whole coast line from Ganjam in the north to near the southern extremity of the Madura collectorate, as well as inland districts. It includes the whole of the Northern Circars, portions of the Kistna district, Cuddapah and Kurnool, most of Nellore, Chingleput, North and South Arcot, Tanjore and parts of Salem, the eastern slopes of the Neilgherries, Trichinopoly, and Madura. In the northern portions of the moist region, the summer monsoon rains are moderate, the maximum fall being in October. In the southern districts the summer monsoon rains are light, the maximum being also in October inland, and during November on the coast. The *very moist region* embraces the whole of the western coast from South Canara to near Cape Comorin, as well as the western slopes of the ghauts. The rainfall below the ghauts varies from 110 to 130 inches, and on the ghaut range from 150 to 200 or more, and the rain falls from May to October, or during the south-west monsoon.

3. *General characters of the flora.*—India may be regarded as a huge botanical garden, as it contains representatives of a very large number of genera which more properly belong to other parts of the world. Its flora is also remarkable for its affinities with the plants of surrounding countries, and the absence of marked special features. Within the limits of the Presidency there is, however, a very great difference between the vegetation of the dry zone and very moist region, and the flora of the hill ranges differs from both. In the dry, and throughout much of the moist region, the wooded area consists to a large extent of "scrub jungle," and the herbaceous flora is largely made up of plants belonging to Capparideæ, Malvaceæ, Tiliaceæ, Leguminosæ, Euphorbiaceæ, Rubiaceæ, Ficoideæ, Amaranthaceæ, Compositæ, Cucurbitaceæ, Labiatæ, Convolvulaceæ, Acanthaceæ, Commelynaceæ, Gramineæ and Cyperaceæ. The very moist region of the west coast is characterised by lofty forest, containing teak and other useful timbers and various palms. In the shade of the forest cardamoms, pepper, and moisture-loving ferns flourish; and melastomads, &c., which are only seen at considerable elevations on the eastern side of the ghauts, grow at sea-level. Along the coast also mangrove, cycads, and gnetum are common.

4. *Dry region.*—As already indicated, the dry zone mainly occupies the centre of the Presidency, extending southwards from Bellary through Mysore and Coimbatore to Cape

Comorin. Throughout the whole of it the scanty rainfall is very precarious, and during the hot season herbaceous vegetation is burned up, many trees are leafless, and the aspect of the country is dreary in the extreme. The silence of the sparse jungle is only broken by the discordant noise of the Cicad, the *took, took* of the Barbet, Xantholæma Indica, the screech of the Kite, or the melancholy whistle of the Drongo-shrike. The characteristic shurbs of the districts comprehended in this section are Carissa carandas, Calotropis gigantea, Opuntia Dillenii, Dicrostachys cinerea, Cassia auriculata, Bauhinia racemosa, Celastrus paniculata, Gymnosporia montana, Euphorbia antiquorum, E. neriifolia, E. tirucalli, Azima tetracantha, Capparis Roxburghii, C. horrida, Niebuhria linearis, Ixora parviflora, Randia dumetorum, Vitex Negundo, Grewia (*species*), Rhus Mysorensis, Securinega leucopyrus, Jatropha glauca. The chief timber trees of the dry region are Balanites Roxburghii, Zizyphus jujuba, Wrightea tinctoria, Acacia Arabica, A. latronum, A. planifrons, A. leucophlæa, A. catechu, A. eburnea, Cassia fistula, Pterocarpus santalinus in certain tracts, Albizzia amara, A. Lebbek, Tamarindus Indica, Pongamia glabra, Morinda citrifolia, and Santalum album. A palm, Phœnix sylvestris, is very common in the northern and central parts of the dry region. Teak is also found on some of the rocky hills, but does not attain the dimensions, or quality as regards timber, of trees growing in moister districts. The other trees found on the low hills of the northern parts of the dry zone are Anogeissus latifolia, Terminalia tomentosa, T. belerica, Diospyros melanoxylon, D. montana, Dolichandrone falcata, Erythroxylon monogynum, Buchanania latifolia, Phyllanthus emblica, Chloroxylon Swietenia, Wendlandia tinctoria, Boswellia thurifera, Lagerstrœmia parviflora, Eriolæna Hookeriana, Pterocarpus marsupium, Dalbergia latifolia, Careya arboreo, Kydia calycina, Hardwickia binata, Elæodendron Roxburghii, Eugenia jambolana, Schleichera trijuga, Soymida febrifuga, Chickrassia tabularis, Stephegyne parvifolia, Mimusops elengi, Putranjiva Roxburghii, Ulmus integrifolia, and Dendrocalamus strictus. Under the trees at the higher elevations of hills in the north of the dry zone, there is a dense undergowth of Strobilanthes. In the southern districts of the dry zone there is much scrub jungle which consists largely of various species of Acacia, Dichrostachys cineria, Canthium parviflorum, Randia dumetorum, Erythroxylon monogynum, Albizzia amara, A. Lebbek, Melia Azadirachta, Alangium Lamarckii, Atalantia monophylla, Bassia latifolia, B. longifolia, Cordia Rothii, Cratæva religiosa, Pongamia glabra, and Ailanthus excelsa. On the slopes of the hills up to a height of 3,000 feet, there are extensive tracts of jungle of the male bamboo, Dedrocalamus strictus, and at higher elevations of Bambusa arundinacea. On the lower parts of the hills the characteristic trees are Boswellia thurifera, Sterculia urens, S. villosa, Dalbergia paniculata, Anogeissus latifolia, Chickrassia tabularis, Chloroxylon Swietenia, Terminalia tomentosa, T. paniculata, T. chebula, Hardwickia binata, Acacia catechu, Albizzia amara, Premna tomentosa, Tectona grandis, Pterocarpus marsupium, Grewia, Lebedieropsis orbicularis, Strychnos potatorum, Santalum album, Strychnos nux-vomica, Gyrocarpus jacquinii, Zizyphus glabrata, Sapindus trifoliatus, Stephegyne parvifolia, Wrightea tinctoria, Albizzia odoratissima, Prosopis spicigera, and Eugenia jambolana. At higher elevations there are evergreen forests containing Tetranthera laurifolia, Litsæa zeylanica, Cedrela toona, Michelia champaca, Mimusops elengi, and the handsome palm Caryota urens. Coffee and tea are also cultivated on the higher parts of some of the hill ranges.

5. *Moist region.*—The herbaceous plants and shrubs common in this region are very much the same as those of the dry zone, but in addition to the shrubs mentioned as pertaining to the latter, the following may be enumerated, viz., Hugonia mystax, Ochna squarrosa, Memecylon *species*, Ehretia *species*, various Asclepiads, Webera corymbosa, Scutia Indica, Toddalia aculeata, Dodonœa viscosa, Celastrus Senegalensis, Eugenia bracteata, Diospyros chloroxylon, Bauhinia racemosa, Acacia farnesiana, Gmelina Asiatica, Jasminum *species*, Capparis horrida, C. divaricata, Wendlandia Notoniana, Gardenia *species*, Ventilago Maderaspatana, Salvadora persica, Zizyphus xylopyrus, Z. œnoplia, Hiptage Madablota, Celastrus *species*, Hemicyclia sepiaria, Glycosmis pentaphylla, Helicteres isora, Phœnix farinifera, &c. Great changes have been made in some places along the coast by planting dry tracts of drifting sand with Casuarina, which grows very fast and is valuable for firewood. Not only do these plantations improve the aspect of the country by clothing the arid sands with luxuriant forest, but they also seem to have a beneficial effect on the neighbouring climate and cultivation. The most important sand-binding plants on the coast are, in the order of their value, Spinifex squarrosus, Ipomæa pes-capræ, Latnæa pinnatifida, Tridax procumbens, Pupalia orbiculata, Canavalia obtusifolia, and a recently introduced Australian plant Flaveria australasica. It is not very easy to draw any sharp line of demarcation between the forest trees of the dry and moist regions, and in most districts the two floras run into each other. In the north the most characteristic tree is the *Saul*, Shorea robusta, which does not extend south of the Godavery. Other notable trees in the north are Xylia dolabriformis, Heterophragma Roxburghii, Cordia Macleodii, Polyalthia cerasoides, Pithecolobium umbellatum, Albizzia Julibrissin, Oroxylum Indicum, Balanites Roxburghii, Gmelina arborea, Antidesma Ghæsembilla, Ougeinia dalbergioides, Grewia excelsa, Lebedieropsis orbicularis, Protium caudatum, Chloroxylon Swietenia, Erythrina suberosa, Schleichera trijuga, Saccopetalum tomentosum, Soymida febrifuga, Chickrassia tabularis, and Putranjiva Roxburghii. Further south we have instead of the *Saul*, Shorea Tumbuggaia and S. talura, and Acacia sundra, Vitex arborea, Hemigyrosa canescens, Albizzia Lebbek, Ailanthus *species*, Terminalia chebula, T. tomentosa, Anogeissus latifolia, Eugenia jambolana, E. alternifolia, Cochlospermum gossypium, Odina Wodier, Diospyros melanoxylon, D. chloroxylon, Cassia fistula, Hardwickia binata, Dalbergia paniculata, Erythrina *species*, Bauhinia *species*, Acacia latronum, Adina cordifolia, Stephegyne parvifolia, Strychnos potatorum, S. nux-vomica, Sapindus trifoliatus, Buchanania angustifolia, Melia azadirachta, Ægle marmelos, Thespesia populnea, Sterculia *species*, Heritiera littoralis, Avicennia officinalis, Maba buxifolia, Mimusops Indica, Givotia Rottleriformis, Pterospermum suberifolium, Pterocarpus marsupium, *species* of Ficus; and the palms Cocos nucifera, Borassus flabelliformis, and Areca catechu are largely cultivated. Here and there throughout this district there are low hills on which the characteristic trees are Eriolæna, *species* of Sterculia, Bombax, Boswellia serrata, Buchanania latifolia, Butea frondosa, Dalbergia *species*, Careya arborea, Albizzia *species*, Lagerstrœmia *species*, Anogeissus latifolia, Tectona grandis, Gmelina arborea, Terminalia *species*, Phyllanthus emblica, Mallotus Philippinensis, Ulmus integrifolius, Sponia orientalis, Bambusa arundinacea, Dendrocalamus strictus, and Caryota urens. At elevations over 6,000 feet the flora becomes quite changed, and shows various affinities with the vegetation of temperate regions of the world. Amongst the harbaceous plants we find Anemone, Ranunculus, Viola, Potentilla, Spergula arvensis, Anagallis arvensis, Pimpinella, Gentiana, Pedicularis, Plantago major, Lilium, Rumex, Pteris aquilina, Osmunda regalis, and Gleichenia dichotoma. Balsams are specially represented and luxuriant, and ferns and certain orchids are common. Two species of fern, viz., Lastrea scabrosa and L. ferruginea, are peculiar to Southern India. Of the plants, the most characteristic are Berberis, Rubus, Rosa, Cotoneaster, Gualtheria, Ligustrum, and Lobelia excelsa. Species of Strobilanthes, too, are numerous and exceedingly common. The most typical trees are Michelia, Gordonia, Ilex, Meliosma, Photinia, Eugenia, Viburnum, Vaccinium, Rhododendron, Symplocos, Salix, Cinnamomum, Tetranthera, Litsæa and Glochidion. In the shade of the forest the shrubs consist mostly of Strobilanthes, Rubiaceous plants, Sarcococca saligna, &c. On the slopes of the hills coffee and tea are largely cultivated, and on the plateau of the Neilgherries there are extensive Cinchona plantations consisting chiefly of crown and red barks. The culture of the latter species is also carried on in Wynaud, and to some extent in Coorg. Apples, peaches, pears and strawberries thrive fairly on the eastern side of the Neilgherries and walnuts fruit very well at Ootacamund. The Australian Acacias and numerous species of Eucalyptus have been introduced, and grow vigorously. Species of Cupressus, Araucaria, Criptomeria, Frenela, and Pinus brought from the Himalayas, Japan, &c., are also thriving.

6. *Very moist region.*—This embraces the entire Malabar coast, which consists of a narrow hilly strip of land between the Western Ghauts and the sea, and the western slopes of the ghauts. Owing to the perennial humidity of the climate, the flora is very luxuriant. The cocoanut and areca palms are largely cultivated, and Caryota urens and Corypha umbraculifera are common. The other palms in this region are Arenga Wightii, and Bentinckia condapanna. The flora generally is very similar in its characters to that of Ceylon, and many species are identical. The pepper vine and jack tree are also largely cultivated, and so are plantains. A conifer, *Podocarpus latifolia*, grows on the hills, and one of the most conspicuous trees is *Vateria Indica*, with its beautiful bright green foliage and large panicles of white flowers. Other characteristic plants are Garcinia morella, G. cambogia, G. Indica, Alstonia Scholaris, Cerbera odollam, Pandanus, Rhizophora, Ceriops, Bruguiera, Diospyros embryopteris, Canarium strictum, Ailanthus Malabarica, Oroxylum Indicum, Macaranga, Connarus monocarpus, Gnetum *species*, Cycas *species*, Mussænda frondosa, Litsæa zeylanica, shrubby Solanaceæ, a number of species of Eugenia, Ixora coccinea, Scævola, Vitis lanata, Calophyllum Wightianum, C. tomentosum, Utriculariæ, Osbeckia and other Melastomaceæ, Sphenoclea, and Acanthaceæ. The western slopes of the ghauts are covered with dense forest, some of the trees towering to a height of 200 feet.

The typical trees here are Calophyllum, Mesua, Dipterocarpus, Hopea, Vateria, Chickrassia, Canarium, Gomphandra, Euonymus, Harpullia, Ormosia, Acrocarpus (*Red-cedar*), Saprosma, Bassia, Myristica, Alseodaphne, Sarcoclinium, Ostodes, Artocarpus, Laportea, and Gironniera. The undergrowth consists largely of numerous species of Strobilanthes and shrubs belonging to Rubiaceæ and Euphorbiaceæ. There are three reed bamboos, viz., a Beesha, Oxytenanthera, and Teinostachyum. The tree fern Alsophila latebrosa is common, and the rarer A. crinita is also found. Epiphytic ferns, mosses, balsams, and orchids cover the trunks and limbs of many of the trees. Some of the orchids are of great beauty, and the genera most largely represented are Oberonia, Dendrobium, Eria, Cælogyne, Eulophia, Saccolabium, Ærides, and Habenaria. Cardamoms, Zingiber, Hedychium, Alpinia, and other members of the same family flourish in great perfection. The forests on these western slopes are evergreen, and viewed from a height the great variety in the color of the foliage gives them quite a character and renders them remarkably beautiful.

7. *Food-grains and pulses.*—The chief cereal in some parts of the dry region is raggy, *Eleusine coracana*, but rice is also cultivated wherever a sufficient water-supply is available. The pulses raised in this zone are gram, *Dolichos biflorus*, and a pea, *thovaray*, *Cajanus Indicus*. In the northern parts of the moist region cholam, *Holcus sorghum*, is the chief dry grain crop. Throughout the whole of this zone, however, the staple food is rice, and a great number of varieties of it are cultivated. Various millets, species of *Panicum*, are also produced in small quantities. The two pulses already mentioned are also cultivated here, and Bengal gram, *Cicer arietinum*, and green gram, *Phaseolus mungo*. Other species of *Phaseolus* and *Dolichos* are also common. In the very moist region the chief cultivated food-grain is rice and some of the pulses already mentioned.

APPENDIX No. VI.

MINERAL RESOURCES OF THE PRESIDENCY.

(1) *Diamonds.*

Cuddapah District.—Within the limits of the Cuddapah district the principal localities where diamonds have ere this been worked for are the following: Canoopurty and Woblapully both near Chennoor, but on opposite banks of the Pennair river; Lamdoor and Pinchetgapadoo west of Chennoor; and Jummalmudoogoo, Goorapore and Doopaud.

Woblapully is in lat. 14° 34′; long. 78° 51′ 35″. Dr. Heyne gives the following account of the mines. He says that they were discovered about 40 years before his visit, which took place in the year 1795, and that they were the most recent in this tract. The diamonds which were found were flat or round, not showing the crystalline form, but were of superior lustre and hardness and better than those found further west. A few days after his visit one was found weighing 14 carats, which was valued at 200 Madras pagodas. He gives an elaborate list of the prices at the mines of rough stones free from flaws, &c. A stone of 1 manjauly or 2 carats weight, if belonging to the first or Brahmin class, was worth about Rupees 90, but if of the Shoodra class, only half that sum; the other classes having intermediate values. A stone of 8 manjauly, or 16 carats, if of the Brahmin class, was worth Rupees 1,800 and if of the Shoodra Rupees 1,350. The lessee of ten mines in this neighbourhood, including Condapettah and Woblapully, paid to the company 130 pagodas. On all stones which were found, weighing above a pagoda or 16 carats, he had to pay to the company one-third of the value. The lessee stated that an expenditure of 2,000 pagodas yielded 5,000 pagodas, but the business was highly precarious.

Canoopurty appears to be identical with the Condapettah of Dr. Heyne and Captain Newbold. At Condapettah, according to the latter who wrote papers down to the year 1850, the mines are generally of a square form, and from 4 to 12 feet deep. The stratum cut through is of cotton soil mixed with small grains of quartz, generally from 3 to 10 feet thick, which rests immediately on a bed of rolled stones of various sizes, from that of a paving stone to a nut, in which the diamonds are found, generally loose, but sometimes adherent. The stones are mingled with mud and gravel. The pebbles most commonly met with are ferruginous, gritty, and schistose sandstones, sandstone-conglomerates, including rolled pebbles of quartz, chert and jasper, claystone porphyry, with crystals of felspar; blue jasper, veined with oxide of iron; coarse, red jasper and quartz crystals. Some of these pebbles have evidently been transported from the adjacent hills, but the porphyritic and felspathic pebbles must have travelled a much greater distance. Near the base of the hills the cotton soil is covered with red gritty earth, arising from the disintegration of the sandstone rock. The process of mining consists merely in digging out the rolled pebbles and gravel, and washing them carefully in small square reservoirs raised on mounds having their bottoms paved with stones. At the foot of the mound is a clear space surrounded by heaps of refuse, where the washed gravel is again carefully spread out and examined in presence of the diamond contractors; the diamonds are easily recognized in the moist state by their peculiar lustre. These mines were formerly let out by the Government to native contractors. In 1834 the mines proved profitable, but in the following year the miners lost a considerable sum. The sum paid to Government by them for the privilege of mining a piece of ground, 100 yards long by 50 broad, for four months was Rupees 200. In 1840, the contract rose to about Rupees 250. When a diamond of more than a gold pagoda in weight (= 52·56 grains at Madras) was found, it was sold by public auction, and one-third of the proceeds went to Government, the remainder to the mining contractor. Dry weather was selected to carry on operations to avoid the inconvenience and expense of draining. Previous to British rule all the diamonds produced were carried for sale to Golcondah. In those days very large diamonds were found. Dr. Heyne and Captain Newbold, when describing their visits to these mines, mentioned that the natives objected to their approaching them on horseback, as it would, they said, irritate Ammavaroo or Lutchmee, the goddess of riches, who was the patroness of the mines. Newbold stated that he witnessed sacrifices made to propitiate her. The different pebbles considered indicative of the presence of diamonds bear the following names in Teloogoo:—Tella bendoo, decomposed hornstone; Binga bendoo, transparent quartz; Patchay bendoo, epidote; Gajjoo bendoo, pebbles with an ochreous encrustation; Baggira, jasper of various colours; Karla, basalt; Yerra bendoo, sandstone; Kanna, small globular ironstone; Korund or Corundum, which is considered to be the best sign. Besides these there are many other pebbles, chiefly varieties of sandstones.

The mines in this locality go generally by the names of the Chennoor mines. Chennoor, lat. 14° 34′, long. 78° 51′ 30″, is a village near Cuddapah town. The mines were leased collectively for a time by Mr. Richardson, of Madras, who applied to the Collector of Cuddapah for permission to work them in 1869, at the favourable rent of Rupees 100 per annum. This attempt was not attended with success, but there are accounts of two diamonds having formerly come out of the field which were eventually sold, respectively, for Rupees 50,000 and Rupees 30,000.

Bellary District.—In the neighbourhood of Moonimadoogoo; lat. 15° 17′, long. 78° 2′ 30″; 16 miles west by south of Bunganapully, there is a continuation of the diamond-bearing strata, which thinly cover the older Cuddapah rocks. The mines have long been deserted, but according to Captain Newbold there was in his time a colony of diamond polishers in the town. He gives diagrams of the apparatus which they used for polishing, and states that they not only employed diamond dust for this purpose, but also understood how to make use of the natural cleavage of the stones. Though there is now no systematic mining, diamonds are still occasionally found, but no revenue has been raised on the mines since 1813. The conditions under which they were worked under the Native Governments were—(1) All diamonds weighing one pagoda and upwards to be the property of Government; (2) On others a royalty of 2½ per cent. to be paid to Government; (3) A monthly nuzzer of one Madras pagoda to be paid for each mine. About the year 1770

half-a-lakh, or Rupees 50,000, was paid under this last head. Many Goozerat merchants settled here, and their descendants are still found, but the ruins of wells, &c., are the sole testimony to the former wealth and importance of the place. After the district was ceded, 30 mines were in operation, which between the years 1803 and 1833 yielded an annual average revenue of only Rupees 3,600. During this period only seven diamonds weighing more than a pagoda were found, and the leases gradually expired and were not renewed. Mining was a hereditary trade followed only by a class of Balijas called Ganekara.

Vajracaroor is in lat. 15° 2', long. 77° 27'. The description of Moonimadoogoo given above is in part applicable to mines at this locality also. Diamonds were formerly found here.

KURNOOL DISTRICT.—The following is a list of diamond localities in the Kurnool district:—

Bunganapully...	37 miles S.S.E. of Kurnool. Rock workings worked. Lat. 15° 18' 30", long. 78° 16'.
Ramalcottah ...	18 miles W. by S. of Kurnool. Alluvial washings worked. Rock workings deserted. Lat. 15° 34', long. 78° 3' 15".
Timapooram ...	6 miles E.S.E. of Ramalcottah. Rock workings deserted. lat. 15° 32' 30", long. 78° 6' 30".
Yembye ... Byanpully ... Goorramcondah	24 miles S.S.E. of Kurnool. Rock workings deserted.
Goodipaud ... Bannoor ... Devanoor ...	Nundicotcore talook. Doubtful localities.
Sheitauncottah.	Right bank of Toongabudra, E.N.E. of Kurnool. Deserted.
Deomurroh ...	Left bank of Toongabudra. Deserted. Lat. 15° 49', long. 78° 11'.
Tandrapaud ...	Left bank of Toongabudra. Alluvial deserted. Lat. 58° 51', long. 78° 7'.
Baswapore ...	Nullamullays. Rock workings and alluvial washings deserted. Lat. 15° 25', long. 78° 43' 30".

Bunganapully is in lat. 15° 18' 30", long. 78° 16'. The quartzites of the Bunganapully group form a cap, resting unconformably on the denuded surface of a much older set of shales and traps with some limestone bands. The quartzite covering is from 20 to 30 feet in thickness, and it is pierced here and there over the Bunganapully end of the hill by shafts of 15 feet or less, from the bottoms of which nearly horizontal galleries are run to get at the seams of diamond gangue. The capping is composed of compact grits and sandstones in thickish beds above, and somewhat thinner bedded towards the bottom. Externally the rocks are hard and vitreous. At the level of the galleries there are beds of coarse pebbly conglomerate, occasionally a breccia, which are sandy and clayey, and with these run seams of more shaly and clayey stuff. There is no trace of the clayey constitution on the outside along the outcrop, nor are there any distinct bands of shales; there are only some sandy shales down at, or near, the bottom of the series. At a recent inspection of the mines, the coolies were found picking out a seam of about 6 or 8 inches in thickness, occurring with thicker and harder beds of sandstone, which they said was the diamond layer. This rock when brought to light turned out to be an easily broken-up damp, clayey conglomerate, and partly brecciated, of small rounded fragments and pebbles of black, red, green, and pale-coloured shales and cherts, and of quartzite with large and small grains of dirty and pellucid quartz. This was the rock extracted in all the mines then being worked. The gangue is pounded up, washed, sifted and laid out to dry on prepared floors, after which the residue of clean sand is carefully examined in the hand, by the women and children of the working parties, for the precious gems. Large stones do not appear to have been found here, the highest value being from 300 to 400 rupees. The extension of the diamond-bearing stratum can be traced for several miles to the west beyond the region wherein it is worked.

Ramalcottah is in lat. 15° 34', long. 78° 3' 15". The mines near this place are situated about 19 or 20 miles south-south-west of Kurnool. They have been excavated in the quartzites of the Bunganapully group. When visited by Captain Newbold about the year 1840 only 20 men were at work, but during the dry season 500 were employed. In the wet season operations were wholly suspended owing to the pits becoming full of water. The contractors held the mines from the nawab for an annual payment of Rupees 750, and sublet them to parties of operatives. The mines, though not spread over so large an area as those near Chennoor, were deeper and more extensive. The diamonds seen by Captain Newbold were of small size and not of regular crystalline form; they were of white, grey, yellow, and greenish tints. The processes of mining and washing were similar to those practised at Bunganapully. Labourers received only four pice, or about three halfpence, and a meal of rice per diem. It is stated that there is no rock-mining carried on at present, but alluvial washing is practised, the material being dug from the edge of the alluvial plain close to the village. The northern base of the Gunnygull range is covered with the deserted ruins of pits and heaps of broken stones. The identity of Rawalcondah, which was visited and described by Tavernier about the year 1665, has long given rise to much speculation. It has now been clearly shown by an examination of Tavernier's stages that Rawalcondah must have been at, or close to, Ramalcottah.

KISTNA AND GODAVERY DISTRICTS.—Proceeding down the valley of the Kistna river from west to east, the localities where diamonds have been worked for are as follows:—Colloor (the Gani Coulour of Tavernier), Wustapilly or Oostapully, Kodavatakolloo, Atkoor, Bartenipaud, Partial or Gani Partial, Mullavilly, and Gollapully.

Colloor is in lat. 16° 42' 30", long. 80° 5'. The identity of the modern Colloor with the Gani Coulour of Tavernier, which is written simply Gani by many English authors, has recently been discussed. Much interest naturally attaches to the history of the Kohinoor, which is believed to have been found at this place. The following account by Tavernier shows the former extent of diamond-mining operations at this locality:—"It is not above a hundred years since this mine was discovered by a countryman, who, digging in a piece of ground to sow millet, found therein a pointed stone that weighed above twenty-five carats. He, not knowing what the stone was, but seeing it glisten, carried it to Golcondah, where, as it happened well for him, he met with one that traded in diamonds. The merchant informing himself of the place where the stone was found, admired to see a jewel of that bigness, not having seen before one that weighed above ten or twelve carats. However, his report made a great noise in the country, insomuch that the moneyed men in the town set themselves to work, and causing the ground to be searched they found, and still do find, bigger stones and in greater quantity than in any other mine, for they found a great number of stones from ten to forty carats, and sometimes bigger; among the rest that large stone that weighed 900 carats, which Mirimgola presented to Aurungzeeb. The first time I was at the mine there were about 60,000 persons at work—men, women, and children—the men being employed to dig, the women and children to carry the earth. After the miners have pitched up on the place where they intend to work, they level another place close by of the same extent, or else a little bigger, which they inclose with a wall about 2 feet high. In the bottom of that little wall, at the distance of every 2 feet, they make small holes to let in the water, which they stop up afterwards till they come to drain out the water again. The place being prepared, the people that are to work meet all together—men, women, and children—with the workmaster in the company of his friends and relations. Then he brings along with him some little image of the god that they adore." After describing the worship of this and a feast of rice, he continues:—"When the feast is over the men fall to digging, the women and children to carry earth to the place prepared in the manner I have already described. They dig 10, 12, and sometimes 14 feet deep, but when they come to any water they leave off. All the earth being carried into the place before mentioned, the men, women, and children throw the water which is in the drains upon the earth, letting it soak for two or three days according to the hardness of it, till it comes to be a kind of batter, then they open the holes in the wall to let out the water and throw on more water still till all the mud be washed away and nothing left but the sand, after that they dry it in the sun, then they winnow the sand in little winnows as we winnow our corn. . . . The earth being thus winnowed, they spread it with a kind of rake as thin as they possibly can; then with a wooden instrument, like a paviour's rammer, about half a foot wide at the bottom, they pound the earth from one end to the other two or three times over. After that they winnow it again, and then spreading it at one end of the van for fear of losing any of the earth, they look for the diamonds. Formerly they were wont to pound the earth with great flintstones instead of wooden rammers, which made great flaws in the diamonds, and is, therefore, now left off." Tavernier states that the diamond then known as the Great Moghul diamond was discovered in the Colloor mines. Having gone to take leave of the Great Moghul himself (Aurungzeeb) on the 1st of

November 1665, he was invited to return on the following morning to see the Emperor's jewels. He says: "The first object which Akel Khan (the custodian of the jewels) put in my hands was the great diamond, which is a rose, round, very convex (*haute*) on one side; at the edge of one side there is a small notch (*cran*) with a flaw in it. The water is perfection and it weighs 319½ ratties, which are equal to 280 of our carats, the ratty being seven-eighths of a carat. When Mirimgola, who betrayed the King of Golcondah, his master made a gift of this stone to Shah Jehaun, from whom it is descended, it was uncut and weighed 900 ratties, which are equal to 787½ carats, and it had many flaws. If this stone had been in Europe it would have been differently treated, for some good pieces would have been taken from it and the stone left much larger; as it is, it has been almost polished away. It was Sieur Hortensio Vorgio, a Venetian, who cut it, for which he was badly paid. They reproached him with having spoilt the stone, which ought to have remained heavier, and instead of paying him, the emperor made him pay a fine of Rupees 10,000, and would have taken still more if he had possessed it. If Hortensio had known his work better he might have taken some good pieces off without doing injury to the king, and without having expended so much trouble in polishing it, but he was not a very accomplished diamond-cutter." There can be but little doubt that the diamond examined by Tavernier in the Delhi cabinet was the celebrated Kohinoor diamond now owned by Her Majesty the Queen. The following is the further history of the Great Moghul diamond. Baber, the Moghul emperor, obtained a diamond, corresponding exactly with this, and it passed eventually into the possession of the ruling family of Cabool. Nadir Shah, on his occupation of Delhi in 1739, compelled Mahomed Shah, the great grandson of Aurungzeeb, to give up to him everything of value that the imperial treasury possessed, and his biographer and secretary specifies a peshcush, or present, by Mahomed Shah to his conqueror of several magnificent diamonds. According to the family and popular tradition, Mahomed Shah wore the Kohinoor in front of his turban at his interview with his conqueror, who insisted on exchanging turbans. However this might have been, we need have little doubt that the great diamond of Aurungzeeb was in the possession of Mahomed Shah at the time of the Persian invasion; and if it was, it most certainly changed masters and became, as is universally asserted, the property of Nadir Shah, who is also said to have bestowed upon it the name of Kohinoor. After his death, the diamond which he had wrested from the unfortunate representative of the house of Timoor, became the property of Ahmed Shah, the founder of the Abdalee dynasty of Cabool, having been given to him, or more probably taken by him, from Shahrikh, the young son of Nadir. The jewel descended to the successors of Ahmed Shah, and when Mr. Elphinstone was at Peshawar, was worn by Shah Shoojah on his arm. When Shah Shoojah was driven from Cabool, he became the nominal guest and actual prisoner of Runjeet Sing, who spared neither importunity nor menace, until, in 1813, he compelled the fugitive monarch to resign the precious gem, presenting him on the occasion, it is said, with a lakh and 25,000 rupees, or about £12,000 sterling. According to Shah Shoojah's own account, however, he assigned to him the revenues of three villages, not one rupee of which he ever realised. Runjeet was highly elated by the acquisition of the diamond, and wore it as an armlet at all great festivals. When he was dying, an attempt was made by persons about him to persuade him to make the diamond a present to Juggernaut, and it is said that he intimated assent by an inclination of his head. The treasurer, however, in whose charge it was, refused to give it up without better warrant; and Runjeet dying before a written order could be signed by him, the Kohinoor was preserved for a while for his successors. It was occasionally worn by Rhurreuk Sing and Shu Sing. After the murder of the latter, it remained in the Lahore treasury until the supersession of Dhooleep Sing and the annexation of the Punjaub by the British Government, when the civil authorities took possession of the Lahore treasury, under the stipulations previously made, that all the property of the State should be confiscated to the East India Company, in part payment of the debt due by the Lahore Government and of the expenses of the war; it was at the same time stipulated that the Kohinoor should be presented to the Queen of England. After the Company became possessed of the gem, it was taken in charge by Lord Dalhousie, and sent by him to England in custody of two officers. As exhibited at the Great Exhibition of 1851 in Hyde Park, the Kohinoor weighed 186$\frac{1}{16}$ carats. The hypothesis that the Great Moghul diamond, as it was when seen by Tavernier, still exists in Persia under a different name, is wholly without foundation.

Oostapully and Codavettycull are situated in lat. 16° 40′, long. 80° 23′ 30″. Moonaloor or Moogaloor is in lat. 16° 38′, long. 80° 23′ 20″. Atkoor and Bartenipaud are close by. All the above belong to the Partiaul group, and, so far as they have been mentioned by the different writers, the conditions of occurrence of the diamonds appear to be the same as those which obtain at Partiaul. The matrix is a detrital sub-recent bed resting on metamorphic rocks, the materials having been brought down from the adjoining tracts of Kurnool rocks, in or on a portion of which the Colloor mines were situated. Heyne gives the traditional account of the Kodavatakolloo mine, which states that at first bullock-loads of diamonds were discovered.

Partiaul is in lat. 16° 39′, long. 80° 27′. This locality, which is commonly, though erroneously, supposed to have enjoyed the distinction of having produced the Great Moghul or Kohinoor diamond above-mentioned, appears under many different names; thus Ganipartal or Partal, Gani Parteala or Parteal, and Parteal. Although it has been disputed, it seems not improbable that the Pitt or Regent diamond was found in some one of these Kistna valley mines. When the Nizam ceded the Northern Circars to the British, he was permitted to retain possession of all the village lands of this area in which diamond mines were situated, and these villages now stand isolated in the British Kistna and Godavery districts. The revenue derived from them by the Nizam at present, from ordinary agricultural resources, is not inconsiderable, but the diamond mines yield little or nothing. At about the beginning of the eighteenth century, they belonged to a zemindar, but on his discovering the diamonds, they were taken possession of by the Nizam. It has been said that the diamond-bearing stratum is not nearly exhausted, being intact close to pits whence famous stones had been taken. In 1850 two mines only were at work, and these were let for 8 annas each per month, and a searcher who made Rupees 4 or 5 by the sale of the small diamonds deemed himself fortunate. As many of the mines were hollowed down to the rock it appeared that the tract was exhausted; but this is scarcely probable, as the stratum in some cases extends under the villages where from superstitious motives it has not been touched.

Mullavilly is in lat. 16° 41′ N., long. 80° 56′ E.; and Gollapully is in lat. 16° 43′ 30″ N., long. 80° 57′ E. The mines situated between these two villages are alluded to by Heyne, Newbold and others, but within the period to which those records refer they do not appear to have been worked with much result. Some small diamonds are said to have been found in a particular mine about the year 1830. None of them are worked now. The old workings at Mullavilly are in pebbly sandstones of the Doodooghaut range, or in superficial deposits consisting of their debris. These sandstones belong to the Gollapully group, and rest partly on Lower Gondwana and partly on metamorphic rocks. It is possible that they are in part made up of the debris of Kurnool rocks, though none are now exposed in the neighbourhood. Several writers allude to the presence of a kankar bed or calcareous travertin, in association with the diamond-bearing stratum, extending as far as Samulcottah, where, it was said, diamonds had also been found. It would be impossible to say now in what particular mines many of the famous diamonds believed to have come from this so-called Golcondah region were found. Some of them possibly did not come from mines, but were casually found on the surface; thus the Nizam's diamond was about the year 1835 first noticed as a plaything with which a native child was amusing himself. No earlier history of it could be ascertained; its antecedents, therefore, resemble those of the earliest Cape diamond. Very little is known about the weight and quality of this stone. One estimation, based on a leaden model, makes it weigh 277 carats, but another account states that it was broken in three pieces, the largest of which weighed 375 carats; but there is a great deal of mystery about this stone.

Bhadrachellam on the Godavery is mentioned as a locality where diamonds were once sought for, but no particulars are known.

The myth regarding the search for diamonds made familiar to everyone by the travels of Marco Polo and Sindbad the Sailor is of great antiquity. One of the best accounts of it is by Nicolo Conti, who travelled in India in the early part of the fifteenth century. He says that at a place called Albenigaras, fifteen days' journey north of Bizengulia, there is a mountain which produces diamonds. He undoubtedly referred to the localities in the Kistna valley. He says that the mountain being infested with serpents it is inaccessible, but is commanded by another mountain somewhat higher. "Here at a

certain period of the year men bring oxen which they drive to the top, and having cut them into pieces cast the warm and bleeding fragments upon the summit of the other mountain by means of machines which they construct for the purpose. The diamonds stick to these pieces of flesh. Then come vultures and eagles flying to the spot, which seizing the meat for their food fly away with it to places where they may be safe from the serpents. To these places the men afterwards come and collect the diamonds which have fallen from the flesh." He continues with an account of how other less precious stones are obtained, and this part of his description is that of ordinary Indian diamond-mining. The explanation of the story is that sacrifices of buffaloes were offered by the natives to the deities of the mines. These sacrifices were placed on bamboo scaffoldings, and the birds would naturally assail the carcases there placed.

(2) *Graphite.*

TRAVANCORE STATE.—The existence of graphite in Travancore was discovered, in 1845, in the gneiss south of Trivandrum northwards as far as Cochin. Some samples, forwarded from a locality south of Trivandrum, were considered to be too soft and scaly for the manufacture of pencils, that is to say, by the old method. The matrix appears to be a pseudo-laterite formed of decomposed gneiss in situ. Samples from this locality and Vizagapatam were exhibited in London at the Exhibition of 1851. An effort was afterwards made to open up one of the deposits and prepare large samples for despatch to London. The situation of this mine was near Ponalaul, in the Oolamalcull property, about 10 miles north-east of Trivandrum, on the road to Arinaud. About 1¼ tons of the stuff were extracted, which yielded 1,000 lb. of pure graphite. In all these calculations the estimate of cost, 100 lb. per rupee at Trivandrum or even less, is fallacious, since it does not appear that the pay for the superintendent of the operations was included in the actual expenditure incurred, nor does it follow that the cost of extracting the outcrop would not be exceeded when regular mining operations had to be commenced. In 1855 specimens from Travancore, which were lamellar, were described as being soft but brilliant. But the general opinion of experts and manufacturers of pencils in England, to whom samples were submitted, was that they were too gritty and impure to be of much value. Samples of a purer graphite have been obtained more recently from a deposit close to Velloornaud, near Arinaud. The veins in which it occurs are said to cross the strike of the gneiss. Apparently this mode of occurrence, though somewhat unaccountable, has been observed in America also. It is to be noted that the smallest particles of grit in graphite used for pencils is prejudicial, whilst for lubricating purposes, if it is not absolutely pure, it may be injurious to machinery. For the coarser purposes of making crucibles the presence of iron would diminish the refractory properties of the material.

TINNEVELLY DISTRICT.—Pieces of graphite, the size of a small egg and with a laminated structure, have been discovered in some kankar in Tinnevelly, the matrix being limestone or gneiss. Graphite is also said to occur in disintegrated gneiss and at Cullacoorchy and Ambasamoodram in kankar.

KISTNA AND GODAVERY DISTRICTS.—Bands of quartzose rock, with graphite sparingly distributed through them, occur close to Bezwada in the Kistna district. And fragments of graphite occur in the streams which traverse the Bedadnole coal-field. These last, it is believed, have been brought down from the gneiss further north.

VIZAGAPATAM DISTRICT.—Graphite is stated to be found near Causipore in the territory of the Maharajah of Vizianagrum, also at Rampully of Saulore, and one or two other localities. It is used for giving a polish to pottery, and can be had in any quantity at a rupee for 24 lb. at Vizianagrum.

(3) *Coal.*

MALABAR DISTRICT.—A carbonaceous deposit, which was discovered at several points along the Malabar coast by Captain Newbold, gave rise to a supposition that coal might be found close by. The first exposure of this bed was seen in the bank of the Beypore river within the range of the tide. It was a lenticular mass varying in thickness from 5 feet down to 2 inches. Portions were laminated and earthy; others seemed to consist wholly of carbonized woody matter; the colour varied from greenish to jet black. In places shells were imbedded. The further description mentions carbonized trunks and branches eroded and projecting from the mass. Similar deposits were met with at Warkally, 15 miles south of Quilon, in the banks of the Tutalla river, in South Malabar, and between Palghaut and Calicut. The bed at Quilon, which had a lenticular shape, was stated to be included in laterite which rests on gneiss. This locality has been recently examined and it has been found that the lignite occurs with tertiary sandstones and alum shales which are probably of the same age as the Cuddalore sandstones. There appears to be no prospect of these deposits yielding any large amount of fuel.

KISTNA DISTRICT.—In the year 1851 it was suspected that the rocks of Juggayapett contained coal, and several small sinkings having been made a substance which supported combustion was discovered. In January 1868 the locality was visited, but a careful examination disclosed that there were no grounds for expectation that coal would be found in the area. The rocks, without exception, belonged to formations long anterior to the coal-bearing rocks of India, and their lithological and metamorphosed characters were inconsistent with the idea of coal occurring with them. On the other hand there are outcrops of Kamptee rocks which may overlie coal measures at Bedadnole, at Damercherla, and at Lingaula.

Bedadnole is in lat. 17° 14′, long. 81° 17′ 30″. This field, which is about 5¼ square miles in extent, is situated about 38 miles west-north-west of Rajahmundry. It was first discovered in 1801. On examination in 1875 no coal was seen but the sandstones presented a strong resemblance to those of the Singareny field. Borings made here in 1874 corroborated the idea that this was an area of coal measures, as four seams were struck, the largest being 4½ feet thick and at a depth of 188 feet 4 inches from the surface. But the quality of the coal, when analysed, showed that it was of an indifferent nature and probably valueless for fuel. This is an unfortunate fact, as the discovery was the first genuine one made in the Presidency. The analyses were as follows :—

	Average. Coal.	Average. Coke.	Picked. Coal.	Picked. Coke.
Carbon ...	16·4	22·5	37·0	59·5
Volatile ...	30·6	...	37·8	...
Ash	53·0	77·5	25·2	40·5
	100·0	100·0	100·0	100·0

It is still possible however that deep borings within the margin of the overlying Kamptee rocks may discover coal of better quality and greater thickness. The coal discovered being in all probability near the original edge of the deposit, it may be less pure and less thick than it would nearer to the centre of the basin.

Damercherla, otherwise called Mathavaram, is in lat. 17° 36′, long. 81° 7′. The most important portion of this field is however included on the Nizam's side of the river Godavery. The amount of coal on the British side is considered not to exceed 25,000 tons.

Lingaula is in lat. 18°, long. 80° 54′. In the small area of Baraukar or coal-measure rocks surrounding this place, two seams, neither of them exceeding 2 feet in thickness, were found in the bank of the Godavery, and another 5 feet thick, in its bed. A boring put down to test the extension of this bed inland was unsuccessful. In the year 1880 officers in the Nizam's service were engaged in making borings to test the field on the western side of the river, but with what results is not at present known. The coal found on the British side is not of very good quality, and it would be difficult to work it under the bed of the river.

(4) *Sulphur.*

GODAVERY DISTRICT.—Soorasaniyanam is in lat. 16° 29′, long. 82° 9′ 30″. In the vicinity of this village, which is situated between two of the mouths of the Godavery, not far from the sea-coast, Dr. Heyne examined a curious deposit of sulphur, the result apparently of the decomposition of sulphate of lime or gypsum, of which traces were found to exist in the water; but he failed to detect any exhalation of sulphuretted hydrogen gas. The precise locality was a tidal swamp in the dried-up margin of which the sulphur was collected in small heaps. No information exists as to whether the sulphur was ever collected in sufficient abundance to be of commercial importance, and it is probable, therefore, that it was not. A deposit of crystalline sulphur, recently discovered under Paris, owes its origin to a similar cause, namely, the deoxidisation of the gypsum which occurs in the soil there, by contact with organic refuse.

(5) *Antimony.*

BELLARY DISTRICT.—Antimony, together with lead, manganese, and iron, is said to occur in the Sundoor Hills, but no particulars as to its abundance are available.

VIZAGAPATAM DISTRICT.—At Codoor, two miles from Cheepoorpully, antimony is found and sold for two annas a pound.

(6) *Mercury.*

CANNANORE.—In the year 1858 the existence of mercury was reported in a bed of laterite at Cannanore. It was stated to occur as the pure metal in small cells in otherwise solid blocks of laterite. Some excavation of the laterite was made in order to test the abundance of the metal, but with what final result cannot now be ascertained. Possibly there was a mistake in the identification of the substance.

(7) *Gold.*

INTRODUCTION.—The gold fields of Madras have recently attracted much public interest. Speculations have arisen in connection with the discovery of ancient mines in these regions. That there were formerly large hoards of gold in the possession of the ruling dynasties of Southern India has long been known to be the case. The accounts of the vast amounts of bullion which were carried away by the Moslem armies of the fourteenth century are so incredible that they have been by many put down as the product of Oriental exaggeration. But they must have been founded on fact. Megasthenes (B.C. 302) had heard of the existence of gold mines in India, as he gives an account of ants as big as foxes, which dug up gold. Pliny, in A.D. 77, referred to the country of the Nareæ as containing numerous mines of gold and silver. "Nareæ deinde, quos claudit mons altissimus Indicorum Capitalia (Mount Aboo) hujus incolæ alio latere late auri et argenti metalla fodiunt." That by the Nareæ the Nayars of Malabar were meant is now an established fact. Dr. Burnell has, as the result of his translation of the Tanjore temple inscription, come to the conclusion that in the eleventh century gold existed in extraordinary abundance in Southern India. It also seems conclusive that the Ophir of Solomon was situated on the west coast of India, and that from thence went the ivory, apes, peacocks, and gold, all of which could not have been obtained from any one country to the west of India. Besides this general testimony as to the abundance of gold, numerous and extensive ancient mines have been described, which, though they had not escaped the notice of early explorers towards the beginning of the century, have now been brought more prominently to notice. Gold is now known to exist in the following districts and localities:—Madura, Salem, Malabar, Wynaud, Mysore and Bellary. Its occurrence in Vizagapatam is asserted, but it is yet not proved.

MADURA DISTRICT.—In this district gold is found in two localities, in Palakanaut and in the sands of the Veigay river. An auriferous zinc blende has been discovered in some parts of the district.

Palakanaut is in lat. 10° 27′ 30″, long. 77° 50″. Gold is washed out of the detritus of the granitic rocks which form the Pulney hills near this place. Water is scarce and the work is carried on in a small way, barely affording a subsistence to the washers. Deep-mining in the soil has been suggested as being likely to give better results.

The Veigay river is roughly in lat. 10°, long. 78°. The gold here is supposed, like that at Palakanaut, to come from the crystalline rocks of the Pulney hills. The people who search for the gold are called arooppookarar.

SALEM DISTRICT.—Heyne refers to some gold mines which were at Siddharcoil, near Poongamputty, in the year 1802. He was prevented from visiting them owing to a rebellion. They appear to have been either on the borders of Mysore or in the Salem district; probably the latter, but the names are not on modern maps. They were probably not far from Royacottah. Gold used to be found at the base of a hill called Canjoomullay, on the road from Salem to Shunkerrydroog. After the rains a number of people washed for it in streams. The earnings of a washer never exceeded eight annas.

MALABAR DISTRICT AND THE WYNAUD.—The Wynaud forms a terrace of mountain land intermediate in position between the low country of Malabar and the lofty plateau of the Neilgherry mountains. It is separated into three portions, which are locally known as North, South, and South-east Wynaud. Although the south-eastern division of the Wynaud, in which the principal gold tracts are situated, is now included in the Neilgherry district, it will be more convenient here, with reference to the earliest notices, to treat of it as belonging to the Malabar district, in which it was formerly included. Probably the first allusion to the existence of gold in this region since the time of Pliny is to be found in the report of a joint commission from Bengal and Bombay, which was appointed to report upon the condition of the Malabar province in the years 1792-93. Allusion is made in the report to the fact that the Rajah of Nelambore claimed a royalty on all gold found in his territory. In 1793, too, some steps were taken to ascertain the value and extent of the gold mines of this region. The next mention of the fact that gold was worked here is found in Dr. Buchanan's "Journey." He alludes to the existence of gold mines at Malabar in the year 1801, and states that a Nayar who had the exclusive right to mine paid a small annual tribute for the privilege. Owing to the disturbed state of the country, Dr. Buchanan could not visit the locality. In the year 1802 there is a record of several localities in India where gold was then known to occur; and among these Nelambore, the Wynaud, and the sand of the Beypore river at Calicut are included. After the lapse of a quarter of a century, or in 1827, it was also placed on record that specimens of native gold had been found to the west of the Neilgherries in the beds of rivers. In 1830 Mr. F. H. Barber was examined before the Lords' Committee on East Indian affairs. He stated that gold was not only obtained in Coimbatore, but throughout the tract of the country lying west and south of the Neilgherry and Coondah mountains. He had often witnessed the process of gold-washing and had bought the gold as it was extracted. He estimated the area over which the soil was impregnated with gold at 2,000 square miles. The largest nugget he had seen weighed about half a guinea. He attributed the want of improvement in the method of searching to the jealousy of the proprietors. The Government derived a revenue from assessing the putties or trays used to wash the gold, but he did not know its amount. He was sure that the proprietors would be willing to sell their lands at such a rate as would make it worth the while of people of capital to take it, but the Government would not allow Europeans to go into the interior without special permission. In 1831 the Collector of Malabar forwarded a report to Government on the localities where gold was known to occur and on the methods of mining practised by the natives. He had previously for some time purchased

gold from these sources on behalf of the Government. In the same year an officer was appointed to prospect for gold-fields and also to purchase on behalf of Government. His reports were on the whole sanguine as to the extent of the mines and the possibility of their being worked profitably by the British, and he suggested that stamping-mills with engine power should be set up at Coopal. He proposed that a committee should meet there, as a sight of the mines would do more than anything he could write to ensure conviction as to their value. There are frequent references to the jealousy shown by the natives in reference to his researches and inquiries. The Moplahs refused to take service under him at Rupees 5 a month, as they said they would have to work daily for him, while the gold they could find in one day sometimes enabled them to live in idleness for a week. The report was accompanied by a map showing the positions of the mines, on which it is stated that the largest mines were at Coopal and Carambat. After receipt of the report of a committee in 1833, which condemned working in the low country of Malabar as a European industry, the Government came to the conclusion that it would be inexpedient to work the mines, and the officer previously appointed returned to military duty. Reports and letters by the Collector of Malabar in 1857 and 1858 directed attention, after another period of a quarter of a century, to these gold mines, which extended for a distance of 30 or 40 miles along the western faces of the ghauts and also in some places to their summits. The taxes payable by the rajahs for the right to mine had fallen into arrears; and apparently many of the old miners and their descendants had migrated to the coffee plantations of the Western Wynaud. In the year 1865, among those who were attracted to the Wynaud were Mr. H. L. Sterne and Mr. G. E. Withers, both of whom had had experience of Australian gold-mining. Soon after, the enterprise of Mr. J. W. Minchin led to the erection of machinery to crush the quartz at the Skull reef. Other applicants for the right to mine on their estates then came forward, but it is impossible to give all the details of these earliest efforts to put the matter to a practical test or of those which followed in 1875 and 1876. Early in 1875 the Deputy Superintendent of the Geological Survey visited the Wynaud, and soon after his report and map were published. The principal rocks of the area are granites, gneisses, and other forms of metamorphic rocks which are traversed by numerous quartz reefs. The gold he describes as occurring originally in the reefs of large lodes of quartz, in the leaders or spurs from them, and in the casing rock. In the leaders and casing, the gold is generally visible, either segregated in the interstices of the quartz or included in the pyrites or the cubes of the same altered into limonite. Invisible gold also occurs with pyrolusite. In the reefs, the gold is generally fine. The quartz reefs are without exception white at the outcrop, so that it is impossible to say from a surface inspection whether they are auriferous or not. This is the case with the Skull reef of the Alpha Company. The prevailing direction of these reefs is from north-north-west to south-south-east, but owing to the irregularity and the occasional flatness of the underlie it is not always easy to trace them individually, but the Monarch reef appeared to be traceable for nine miles. Another report on the Wynaud gold-fields gives an account of explorations during the years 1879 and 1880. In the tract to which the writer gave his particular attention, and which covers 500 square miles, 200 outcrops, not necessarily distinct reefs, were counted; they are stated to be more numerous, proportionately richer and wider, than in almost any portion of Australia. As had previously been pointed out there are no deep leads or accumulations of drifts, such as characterise the Australian fields. The ancient mines indicated different degrees of knowledge in the miner's art. They consisted of (1) quarrying on the outcrops of veins, (2) vertical shafts, (3) adits, (4) vertical shafts with adits, (5) shafts on underlie. Among these the most remarkable were the vertical shafts; they were even in solid quartz sometimes 70 feet deep, with smooth and quite plumb sides. What the tools were which enabled the miners to produce such work in hard dense quartz, no one appears to be able to suggest. The fragments of stone obtained from these various mines were pounded with hand-mullers, the pounding places being still seen, and the pounded stone was then, it is believed, washed in a wooden dish and treated with mercury. In this report the present condition of the country is compared to an abandoned Australian washing, it being covered over with tailings owing to the industry of the Coorumba. Even still, however, streaks of fine gold may generally be found on washing a few dishes of the surface soil, and "in the vicinity of the reefs rather heavy gold is got by sluicing, and, if a suitable spot be selected, the native miners will obtain, even by their rude methods, sufficient gold to remunerate them or their labour." The assays of quartz available at the time numbered 137, of which the following is an abstract:—

Name of reef.	Number of samples assayed by: Mr. B. Smyth.	Other analysts.	Total.	Average yield of gold per ton. oz.	dts.	gs.	Remarks.
Alpha Company's works.	0	6	6	0	9	16	
Skull reef workings.	7	10	17	3	3	10	One out of the 17 cases had no gold.
Wright's level ...	11	7	18	18	9	1	Out of the 18, two showed fine specks of gold and one assay was lost.
Prince of Wales' reef	6	0	6	0	3	12	
Cavern reef ...	13	1	14	0	18	21	
Coorumba reef ...	1	8	9	1	3	1	Out of the 9, one had traces of gold.
Bear reef ...	4	4	8	0	11	18	Out of the 8, one had no gold and one had few minute specks.
Hamslade reef ...	1	4	5	0	6	13	Out of 5, one had minute particles of gold.
Dawson's do. ...	3	0	3	0	12	9	
Carambat do. ...	4	0	4	0	12	15	Out of 4, one had specks of gold.
	50	40	90	2	13	2	

If from the above an exceptional sample from Wright's level, which gave 204½ oz. per ton, be omitted and also picked specimens from the same workings which gave 25½ oz. per ton, there result 88 samples yielding an average of 1 oz. 8 dwts. 22 grains per ton. As to the quality of the gold, it has been found to be unequal, that from the soils (alluvial) being finest. Two samples of surface gold were assayed in Calcutta and yielded—

	No. 1.	No. 2.
Gold	93·	90·90
Silver	7·	8·67
	100·	99·57

The average of six assays of reef gold gave—

Gold	86·86
Silver	10·96
Dross	2·18
	100·

Such subjects as the climate, water and timber-supply, &c., are fully dealt with in this report, and also the very important question of mineral rights is discussed. Since the Government have taken up the latter question, the matter is on a more satisfactory footing, it having been determined to make the terms of the mining leases as simple and liberal as possible. The following estimate has been made of the cost of working a company. It being assumed that a concession of value cannot be now obtained at a less cost than £ 60,000, the following would represent the first year's expenditure:—

	£.
Price paid for concession	60,000
Cost of machinery, 100 stamp-heads at £200 each	20,000
One year's working expenses	12,000
Contingencies, law charges, &c.	8,000
Total amount of capital ...	100,000

Taking the value of gold at £ 3-15 the ounce, the return from 25,000 tons of stone, containing from 3 to 10 dwts. of gold per ton, would be as follows:—

—	Total of ounces.	Value at £ 3-15. £	s.	Cost of production. £	Profit. £	s.	Percentage on capital of £100,000.
If yield is 3 dwt. per ton.	3,750	14,062	10	11,875	2,187	10	2·19
Do. 4 do. ...	5,000	18,750		11,875	6,875		6·87
Do. 5 do. ...	6,250	23,437		11,875	11,562		11·56
Do. 6 do. ...	7,500	28,125		11,875	16,250		16·25
Do. 7 do. ...	8,750	32,812	10	11,875	20,937		20·93
Do. 8 do. ...	10,000	37,500		11,875	25,625		25·62
Do. 9 do. ...	11,250	42,187		11,875	30,312		30·31
Do. 10 do. ...	12,500	46,875		11,875	35,000		35·00

(8) *Silver.*

KURNOOL.—It has been stated that silver in its native state has been discovered in thin plates adhering to some specimens of cubical crystals of gold, and also in the condition of chloride associated with iron pyrites. These statements have been frequently quoted in works on Southern India, but they are scarcely of economic importance. If the assays of the Kurnool galena are to be depended on, they indicate an extraordinarily rich ore: 374 oz., 175 oz. 3 dwts., 165·76 oz. of silver in the ton of lead; but in the original examination, no trace of silver was found. If these amounts were really found by careful assay, the Kurnool galena mines certainly deserved the title of silver mines. Regarding some Cuddapah galena from a mine, 8 miles north of Cuddapah town, which had been worked by Tippoo Sultan and abandoned as being unprofitable, it has been stated that, on analysis, it was found to contain 11 per cent. of silver, for which, probably, should be read eleven ounces to the ton: since 11 per cent. is equivalent to 246·4 lb. to the ton—an incredible amount. The average percentage of silver alloyed with the gold of the Wynaud has been stated to be about 15 per cent., but it is probably less. Pliny's mention of silver mines among the Nareæ, that is to say among the Nayars on the West Coast, has already been referred to. The silver may have been from the interior, and brought to the coast; but the whole may also be a mistake. The indigenous coinage of Southern India is a gold, not a silver, coinage.

(9) *Lead.*

INTRODUCTION.—Lead ores have been found in the following localities:—in Cuddapah, at Jangamrazpully and Cotelore; in Kurnool, at Gauzalpully and Coilcoontla; in Bellary, in the Sundoor hills; in Pulnaud, at Carampoody. All these deposits, save that at Bellary, occur in rocks belonging to some one or other sub-divisions of the Kurnool geological series.

CUDDAPAH DISTRICT.—The village of Jangamrazpully is situated on a pass which traverses the range of hills known as the Nullamullays, about 4 miles north of the road from Cuddapah to Budwail. The old and now deserted lead workings are at the south end and east side of the low ridge, just north-north-east of the village. The pits or galleries have been excavated between beds of dark grey siliceous limestone, which is impregnated with strings of white and dull blue quartz. These rocks are referred to the Cumbum division of the Nullamullay group of the Kurnool series. Granular sulphide of lead is disseminated in very small quantities through the blue quartz. In the white quartz there are faint traces of copper. The strings of quartz have been deposited in north-north-east and south-south-west fissures, having a dip of 60° westwards, the strata lying at 50° east by north. The old workings are to a great extent filled up with the excavated fragments of rock and are now overgrown with jungle. Further south and west of Jangamrazpully there are again numerous old galleries excavated in the same series of beds; these were found to contain traces of galena, which appeared to be more abundant in the bedded rocks than in the veins traversing them, but most of the ore had been removed. East of the same village there is a zone of similar rocks traversed by quartz veins, striking north-north-east, in which copper ores, pyrites, and carbonates occur. The continuity of this zone is disturbed by cross-faults. At Royacalcoonta it ceases. Captain Newbold gives a description in 1843 of a descent to a considerable depth into one of a group of upwards of 50 mines, which are situated to the south of the above-mentioned road. Some of the masses of rock exhibited signs of blasting. Other excavations are within a radius of 15 miles of the above area, at Coondela-Bory and Polleram. There are some other excavations also situated to the west of Jangamrazpully, opposite Wonipenta, and at the entrance of the Chingaroyakanivey. Two official reports were made to Government on this locality in 1858; but a plate, which is referred to as showing the course of the lead vein, has not been reproduced. The extension of the lode is indicated at points further south than according to the other authorities. To the west of the main lode, and at a distance of three-fourths of a mile from it, what is called a branch vein occurs south-east of the village of Nagsaunipully. It is split into two portions, 2 feet apart, each averaging 4 inches thick; these are rich in galena, and copper ore occurs with it. The main lode extends into the Lunkamala hills. The following are two analyses of each of these ores:—

					OZ.	DWT.
Jangamrazpully	1.	Lead per cent.	66·614	silver per ton ...	10	14
	2.	Do.	69·664	do. ...	13	13
Do. slime	1.	Do.	22·407			
	2.	Do.	33·992			
Lunkamala ...	1.	Do.	70·121	do. ...	9	2
	2.	Do.	76·371	do. ...	8	4
Do. slime	1.	Do.	36·278	do. ...	8	4
	2.	Do.	46·000	do. ...	8	4

A sample of ore assayed in 1879 yielded 78 per cent. of lead and 22 oz. 7 dwts. of silver to the ton of lead. Dr. Heyne's statement that some ore from a mine 8 miles from Cuddapah, assayed in Bengal by the Assay Master and found to contain 11 per cent. of silver, was probably a mistake, since 11 per cent. would mean 246·4 lb. to the ton of ore. This mine was, he says, worked by Tippoo Sultan, but was abandoned on account of its not being sufficiently rich. The above accounts prove that this is a metalliferous locality of much promise, the value of which has been much enhanced by the proximity of the north-western line of railway. According to Captain Newbold the origin of the extensive excavation in this tract is lost in obscurity. It is known that the mines were worked in the time of the Hindoo kings of Vijianugger, and subsequently by the Mahomedan Nawabs of Cuddapah in the time of Haleem Khan, and afterwards by Hyder and Tippoo; the latter is said to have destroyed all the mining records. The excavations which exhibit marks of blasting were probably worked by Mahomedans, who employed gunpowder at a very early period in quarrying rocks. About the year 1810, an officer of the Madras Engineers commenced work, but after a short time gave it up. The silver mines of Pliny may possibly have been in this region.

Cotelore is in lat. 14° 36′ 30″, long. 78° 48′ 15″. Galena is reported by Captain Newbold to have been found in a hill near the Pennair river, not far from Cuddapah, and perhaps the metalliferous zone extends northwards to the Kistna and southwards to the Pennair. That the report was well founded is proved by the fact that a vein of quartz, containing cubical crystals of galena, has been discovered at Cotelore, striking across the river from north-north-east to south-south-west. Its identity with the Lunkamala lode, above alluded to, is uncertain. It traverses a bed of limestone locally known as pooshpagherry stone.

KURNOOL DISTRICT.—Gauzalpully is in lat. 15° 26′, long. 78° 47′. Captain Newbold, in 1846, described the mines in the vicinity of certain villages, about 6 miles east of Gauzalpully. The galena, in association with sulphate of baryta, occurs in veins of quartz. Several other minerals are also present, the most notable being a faint reddish coloured one, which has been identified as carbonate of cerium; another mineral found to consist of a sulphuret of iron and an unknown earth was named Newboldite. These excavations were numerous and were from 5 to 15 feet deep. The diamond mines are closer to the villages. An official account of this locality represents it as affording favourable indications. In two samples the metallic lead averaged 57·5 per cent., and silver was present in the proportion of 5 oz. 19 dwts. to the ton. The deposit of sulphate of baryta, which is full of strings of granular and massive galena, occurs in the same way as at Jangamrazpully, in the north-north-east and south-south-west fissures of jointing in siliceo-calcareous beds of the same slate series. The broad deep trench or quarry cut in these rocks is supposed to have been the work of the Moghuls.

Coilcoontla is in lat. 15° 14′, long. 78° 23′. There is another mine, one-fourth of a mile south of this village. The ore occurs disseminated through a hard siliceous matrix, which would require to be crushed. This would make it more expensive to work than the last-mentioned ore. Forty maunds of this ore were examined at the mint, and, together with some other samples, indicated an average yield of 12 to 14 ounces of silver in a ton of the lead. Previous assays gave 70 per cent. of metallic lead from the dressed ore. The prospect of the railway renders it possible to have this ore carried to some locality where fuel is abundant. Other ores, apparently from the same locality, were exhibited in Madras in 1857, among them samples of 18 inches in diameter and weighing upwards of 3 cwts. The ore is said to have been discovered accidentally by the late ex-Nawab of Kurnool when digging a well.

PULNAUD.—Carampoody is in lat. 16° 26′, long. 79° 47′. There are old lead mines at the north-eastern extremity of the Vaumicondah range, near this village. It is on the

Kistna, west of Goontoor. The mines are in grey siliceous limestones belonging to the Kurnool series.

BELLARY DISTRICT.—Lead has been found in the Sundoor hills.

VIZAGAPATAM DISTRICT.—The so-called antimony, found near Vizianagram, is possibly galena.

(10) *Manganese.*

INTRODUCTION.—Ores of manganese occur in the following districts, but the amount of authentic information as to the nature and extent of the deposits is very limited:—Neilgherries, Cuddapah, Kurnool, Bellary, Vizagapatam.

NEILGHERRY DISTRICT.—An ore of manganese in combination with iron has been obtained at Coonoor, and also in some iron ore near the lake at Ootacamund and in the Kaity valley, but there is no evidence that it is abundant.

VIZAGAPATAM DISTRICT.—Specimens of manganese ores from Vizianagram and Bimlipatam on analysis produced the following results:—

	Vizagapatam.	Bimlipatam.
Silica ...	8·3	9·09
Peroxide of iron.	12·91	11·72
Magnesia ...	2·339	0·668
Lime ...	...	1·244
Red oxide of manganese.	73·786	76·177
Oxygen ...	1·864	0·655
Water ...	0·539	0·432
	99·735 = Mn. 53·428°/ₒ	99·986 = Mn. 54·929°/ₒ

The Vizagapatam ore, which, according to the above analysis, approximates most nearly in character to a variety called marcellin from St. Marcellin in Piedmont, is said to occur in large irregular masses of several tons weight. Its specific gravity is 4·50. The including rock is supposed to be laterite. Manganese is obtainable at Bimlipatam for 2 annas a maund.

(11) *Chromium.*

INTRODUCTION.—The principal source of chromite in the Presidency is the Salem district. It is also said by Captain Newbold to occur at Yedichicoolam on the Cauvery in Trichinopoly, and in the vicinity of Hoonsoor in Mysore.

SALEM DISTRICT.—Cooroopore is in lat. 11° 43′, long. 78° 11′ E. Mines were first opened in this locality by the Porto Novo Iron Company. It is believed that a considerable quantity of the ore was exported to England, but after the first 100 tons had been extracted mining became difficult, and finally it was found that the export of the crude ore was not remunerative. The principal rocks in the low hills at the south-west base of the Shevaroy hills, where the mines are situated, are hornblendic mica and talcose schists penetrated by dykes of basalt and layers of serpentine, which last is intersected by a perfect network of veins of magnesite. The chromite occurs very irregularly in these veins in lenticular masses of various shapes and sizes; one block was said to weigh a couple of tons. At a depth of from 50 to 60 feet water became troublesome in the mines in consequence of which mining became too expensive to be continued with profit, there being no certainty as to the proportion which the chromite bore to the mass of rock which had to be removed. At the same time the demand for this ore was by no means unlimited, and the immediate effect of throwing the Indian ore on the London market is stated to have been to cause a fall in the price. A short account of the appearance of the deserted mine, written in 1861, describes the interior as inaccessible. A tolerably pure sample of the Salem ore yielded 49 per cent. of chromic oxide, equal to about 57 per cent. of chromic acid, or cent. per cent. of chromate of potash. The ore was as good as could be desired, and the only question to settle was whether it could be obtained in quantity equally pure at a moderate cost. At present England obtains the crude ore from Scotland and Styria.

(12) *Iron.*

MADURA DISTRICT.—Iron ores are very generally distributed throughout this district. Formerly, ores obtained from beds of lateritic conglomerate used to be smelted in some quantity, of which large heaps of slag scattered over the country afford evidence; but the industry is now extinct. Only one deposit of magnetic iron has been observed. It is situated in gneissic rocks, about a mile north-east of Malampatty, a village in the Poodoocottah State, 19 miles north-west by north of Poodoocottah town. The outcrop is not known, but the debris from it is abundant. Iron ore occurs near Cottamputty and in the Shivagunga zemindarry and in villages near the bases of the mountains. The Tenkaray country was formerly noted for its iron ore.

TRICHINOPOLY DISTRICT.—The cretaceous rocks of Trichinopoly contain ferruginous nodules, which were formerly smelted, as is proved by mounds of slag; but owing to the scarcity of timber the industry is now almost, if not altogether, extinct, and the people obtain their supply of iron from the adjoining Salem district. Magnetic ores occur, it is believed, in the northern parts of Trichinopoly; but these are of trifling importance and extent as compared with those of Salem.

COIMBATORE DISTRICT.—In this district the principal ore is magnetic sand.

SALEM DISTRICT.—The development of magnetic ores in the Salem district is among the most remarkable facts connected with the geology of India, whether the extent, thickness, or number of the beds be considered. For convenience of description they have been divided into groups as follows:—(1) The Godoomullay group, east and north-east of Salem; (2) the Talamullays, Kollamullay group; (3) the Shingiputty group; (4) the Teertamullay group; (5) the Canjoomullay group. Owing to the persistency of the beds over long distances, they often afford a useful clue to the geological structure of the region. In some cases they form the culminating ridges of ranges of hills. They are occasionally from 50 to 100 feet thick, and, where steeply inclined or vertical, a very great extent of ore is laid bare to view in cliffs and precipices which are several hundreds of feet high. The quality of the ore varies and it is sometimes much mixed with quartz. Ore is, however, to be obtained in this region of the best quality, and in quantities to be estimated only in thousands of millions of tons. The scarcity of fuel is the drawback to its being made available. The natives obtain ore either as sand on the surface or from shallow pits. Wootz or Indian steel was formerly manufactured from these ores. Porto Novo is situated in South Arcot, but the iron ores which were used at the furnaces there were obtained in Salem. The large demand for Indian steel in England led to the formation, in the year 1833, of a company called the Indian Steel, Iron and Chrome Company, a Government advance having been obtained for the purpose in 1825. This company produced excellent steel, and in order that it should reach the market free from any defects which might injure its reputation, they had an establishment at Chelsea, through which it was tested and passed before being sold. Having succeeded, they disposed of the Indian works and established themselves in Caermarthen, where they manufactured a superior quality of charcoal iron. The leasehold rights of the company, which were acquired by another company, extended over four districts, namely South Arcot, Coimbatore, Malabar and South Canara. Foundries were set up at Porto Novo to work the Salem ore, at Poolampatty near Salem, and at Beypore in Malabar where the ore was laterite. The next account of the Porto Novo works, in 1859, states that the iron ore had to be brought from many miles distant in the interior,

and owing to all the jungle having been cut down, and the land cultivated, the charcoal had to be brought from a distance of 25 miles. The flux was prepared from sea-shells. The principal work done had been in castings, but some pig had been sent to England and had commanded a good price for conversion into steel, and a large quantity of it was used in the construction of the Britannia tubular and Menai bridges. The iron would, it is said, have commanded a good price had the supply been regular, but it rarely realised more than from £7 10s. to £9 per ton, while Ulverstone iron, which was no better if even so good, sold for from Rupees 100 to Rupees 120. There were difficulties about shipping it, and at the time of his visit there was a large stock of pig on hand. The furnaces were seldom, from one cause or another, at work for more than four months in the year, and the cost of management alone was thus raised from Rupees 5 to Rupees 15 per ton. Altogether the company appears to have never declared a dividend, and the concern was a steadily losing one. About this time (1859) however, at a meeting held in Sheffield, the value of Indian pig for steel manufacture was discussed. There had been some prejudice against the use of any description of pig whatever for making steel, but this had been overcome. Various trials and experiments led to the conclusion that iron, as produced for file purposes from Indian pig, was superior to any other in England, and that it had been proved to be superior to ordinary marks of Swedish iron for steel purposes. One manufacturer had brought over a thousand tons of Indian pig for railway tyres. The chairman stated that he had been the first to make steel from Indian pig, and from that time it had been steadily making its way. He added his conviction that India would ultimately become one of the largest sources from whence Sheffield would draw her supplies of raw materials. The price at the time in the London market was then only Rupees 65, while ordinary English pig, it may be added, was selling in Calcutta at about Rupees 56-2-8. It is to be remembered that the above pig was from Porto Novo, not from Beypore; having been made from magnetic iron ore, it was especially applicable to the manufacture of steel; but it may be doubted whether that which was sold at Rupees 65 ever repaid the cost of production and carriage.

South Arcot District.—Iron ores are said to be abundant in South Arcot, in parts of the Trinomallee talook, where the Porto Novo Company had a factory. They also occur on the Kalroyen hills, particularly on the slopes below Chinna Tripatty, also near Ponparappy and Rauvatnallore.

North Arcot District.—Heyne described the manufacture of iron at Shiragooty, near Sautghur in Arcot, from what he believed to be titaniferous magnetic iron sand. The chief feature to be noticed in his account is the careful way in which the proportions of ore and charcoal seem to have been fed into the furnace; nine seers of sand produced five seers of iron, which must be regarded as a large percentage.

Malabar District.—Dr. Buchanan during his journey through Mysore, Canara, and Malabar noted several places in the last-mentioned district, where iron ores occurred and were worked. Some of these are no longer included within the present limits of the district. The ore was derived from the very laterite which suggested to Dr. Buchanan the name. Being cut into bricks for building, the term lateritis suggested itself to him as an appropriate title. This ore had to be prepared by washing in a trough, open at both ends, which was placed in a running stream. This washed ore was, perhaps, largely magnetic. The furnaces, of which admirable sections and elevations are given by Dr. Buchanan, were excavated in mounds of clay, 5 feet 4 inches high in front and 4 feet behind, and about 7 feet wide from front to back. The excavation for each furnace was 2 feet 11 inches wide and 2 feet deep, and was dug down from the top of the mound to the bottom; an arched cavity at the back, with a hole at its base, was then made and the structure surmounted with a chimney. The charge of ore was 2,160 lb. and of charcoal fuel 1,810 lb. of which some was not consumed during the 24 hours while the furnace was in blast; the yield of iron was from 246 to 384 lb., or from $11\frac{8}{10}$ to $17\frac{8}{10}$ per cent., according to the success of the operations. It was of the usual character and was partially malleable though brittle. The bellows were leather bags, 18 inches high and 9 inches in diameter. One man worked a pair by clasping the slit flaps at the top; by alternately raising and depressing the bags the air was driven through a nozzle common to both bags. Each furnace required two pairs, and each pair required two men in order to relieve one another. The iron was sold at the rate of 7 shillings $7\frac{3}{4}$ pence per cwt., and the profits were considerable.

The concession given by Government in 1833 and mentioned above in connection with iron in the Salem district included permission to establish iron works at Beypore. The first works which were established commenced operations in the year 1833; how long they continued is not known, but there appear to have been a succession of companies whose object was to establish the industry. The ore used was derived from the local laterite. In 1857 the Guncarriage Department reported favorably to the Home authorities on the iron for their purposes, but in 1859 the works were in a failing condition as the whole of the machinery was offered for sale to the Koomaon iron works. Deficiency of fuel was supposed to be the cause of failure; there were no roads by which it might be brought from the inland forests, where timber was abundant, and consequently fuel was even imported from Ceylon. Certain German workmen who returned to Styria gave as reasons for their ill-success that the climate was oppressive, and that puddling could not be entrusted to natives without constant supervision. Subsequently, in 1861, the puddling was superseded by the introduction of a Bessemer's converter, but the resuscitation was only temporary and the works have now been closed for some years.

Neilgherry District.—Iron ores occur in some abundance on the plateau and spurs of the Neilgherries. They were first described in 1836. Subsequently, an account of their leading characteristics appeared in an official geological report. Hæmatite and specular iron are more common at the surface than magnetite, but from their mode of occurrence as bands in the gneiss and parallel to the bedding it seems probable that they were originally magnetite, which has become altered by atmospheric agency. The most important masses of iron ore occur above the village of Curracholay, $1\frac{1}{2}$ miles west of Kotagherry, and on a small spur of Dodabetta overlooking the dhobies' village. At Jackatalla pure strings of hæmatite occur interfoliated with the gneiss. Charcoal fuel is too scarce on the hills to make it possible that by its means the ore could be smelted. It may yet be found that the Neilgherry peat or the charcoal made from it is applicable to this purpose. A writer on fuel discusses the question of the suitability of peat for metallurgical purposes, and mentions that peat charcoal had been so employed at Josefstadt in Austria, though he does not recommend its use, and states that the practicability of making good peat charcoal economically has still to be decided by experience. In various parts of the Neilgherries decomposition of earthy iron ores has given rise to ochreous deposits suitable for pigments.

Cuddapah and Kurnool Districts.—In these districts, iron ores occur in great abundance, being found in both of the groups of rocks which bear the names of the districts. The ore generally worked belongs, however, principally to the Cuddapah series; it occurs in layers among the beds, or in veins, strings, or nests. A series of iron-smelting villages lie along the eastern side of the Coondair valley from Nundiaulampett northwards. Near Chintalcheroo (8 miles north of Doovoor), according to a recent report, at a small village called Colapett, there were ten furnaces. The ore used was a somewhat siliceous hæmatite brought from the hills to the east; the iron was worked up on the spot into agricultural implements. Several furnaces were also in operation at Yerragoontlacottah in the Chitwail (or Rajampett) talook; here the ore from the Cuddapah is mixed with a laterite ore. In the Royachoty and Culcada talooks, near Muddicheroo, Nerabyle, and Chintacoonta, iron was manufactured to a small extent, the ore being brought from the hills to the east. In other parts of the district there were also furnaces, and itinerant blacksmiths, carrying with them the implements of their trade, wandered over the district seeking for employment. In the Kurnool district the best ore is found in the Gunnygull range, to the south of Kurnool town, the rocks forming which include large veins of pure specular ore in conjunction with lines of fault. A great isolated mass of almost pure specular ore rises out of the base of the northern slopes, but its precise mode of occurrence is concealed. South-east of Ramalcottah, on this northern flank, there are altered quartzites, which are highly impregnated with iron, and specular ore occurs there also in great abundance along lines of fault. Scarcity of fuel prevents these valuable ores being largely used.

Ferruginous quartzites crop out all along the western flanks of the Nullamullays from some distance north of Nundiaulampett up to opposite Nundiaul. The principal smelting villages are Bauchepully, Roodraur, Shreerungapooram, Cadamalcalwa, and Ghalchenpollem. At Roodraur the selling price of the wrought-iron was recently Rupees $1\frac{1}{2}$ for 9 lb. weight. It has been clearly shown that there was much waste of labour and material in the

production of the iron, which, however, was sold at the rate of about Rupees 200 per ton.

BELLARY DISTRICT.—Iron ores are abundant in this district. Some of the ores are manganiferous.

NELLORE DISTRICT.—In this district there are two groups of magnetite beds, named the Ongole and the Goondlacumma. They include some rich deposits, but are somewhat variable in quality; they occur interbedded with metamorphic rocks. Steel is not manufactured.

KISTNA AND GODAVERY DISTRICTS.—The manufacture of iron in these districts has attracted notice for many years, and there are early references in the literature of the subject to the manufacture of iron at Lutchmipooram and Ramauncapett. Furnaces in operation at Polleram and Chitaupooram have been described, the principal sources of iron being the sandstones of Gollapully, Tripatty, and Rajahmundry, especially the latter.

VIZAGAPATAM DISTRICT.—There are iron ores in the Jeypore State and other hilly portions of Vizagapatam. A lode containing a large amount of iron ore on a line of fracture in the rocks of the Kurnool series at Chitra—lat. 19° 4′, long. 82° 30′—about 12 miles to the south-east of Cottapaud has been examined. It had been extensively mined, a deep trench having been opened along the outcrop for a distance of nearly a mile. The ore formed the matrix of a breccia, and appeared to be a rich brown hæmatite. Most of the other ores which are or have been worked in this region are not improbably derived from laterite. The metal exported to the plains is in the kachcha or unrefined state, the retail price being only a rupee a maund; but at Madgole, lat. 18° 2′, long. 82° 30′, woötz or steel of fine quality is manufactured. The following is a list of the places nearest the plains where iron ores occur:—Jorapoocondah, 20 miles from Narrainpatam, quarry; between Jorapoocondah and Lohargooda, no quarries; Bhittarilotsa, 12 miles from Narrainpatam, a good quarry; Goommidicondah, 15 miles from Narrainpatam, a good quarry; Raiga, 10 miles from Narrainpatam, abundance of ore.

(13) *Corundum.*

COIMBATORE DISTRICT.—Corundum is reported by Captain Newbold to have been obtained at Guzzelhutty and Chennimullay in this district.

SALEM DISTRICT.—Captain Newbold says that corundum is to be found in gneiss and an earth resulting from the decomposition of that rock at Nammaul and Viraulimode on the north bank of the Cauvery in the Paramatty talook; at Sholasiraumany in the Trichengode talook in great abundance; at Caranel, Anooppore, Mulloopully, and at various localities up the river Cauvery, as far as Caucambaudy, where it had been dug up by the natives in the fields, the remains of the excavations can still be traceable in his time; rubies used also to be obtained at these localities, especially at Viraulimode and Sholasiraumany. Corundum used formerly to be collected and sent to the western coast, its selling price being from 50 to 100 pounds weight for a rupee. Another account states that it was found in many parts of the Salem district, especially near Indore and in the Paramatty talook. Two kinds were found by the natives when ploughing their fields, one was a dirty red and the other a dark gray colour. It was generally crystalline, but had a foliated structure and frequently included metallic-looking grains. To the above list of localities may be added Gopaulchettipolliem, 50 miles north of Salem, Yelagherry and Gowndapaudy, from all of which there are specimens in the Madras Museum.

BELLARY DISTRICT.—During 1878 samples of corundum from the vicinity of Parghy, in the Hindoopore talook of Bellary, were collected and are described as being of a sea-green color, and having some white felspar and mica attached; the mineral is obtained from small pits, 6 or 7 feet deep, and it is stated that several thousand rupees worth have been exported to England. The local price varies from Rupees 5 to Rupees 7 per 100 seers by measure. The measure contains about 88 tolahs or 2 lb. English of grain, so that making all allowances the corundum would weigh perhaps rather more than three times as much. The price would therefore be from Rupees 5 to Rupees 7 per 600 lb. Corundum is also found in several parts of the Madaksira talook, as well as in Hindoopore.

NORTH ARCOT DISTRICT.—A specimen of clove-brown corundum of good quality, labelled as being from the Nagary hills, is included among the specimens at the Madras Museum.

KISTNA AND GODAVERY DISTRICTS.—Samples of red corundum from Goontoor were exhibited at a recent exhibition at Madras, the exhibitor considering that portions were suitable for jewellery and that the remainder was worth from Rupees 150 to Rupees 200 a ton.

(14) *Cerium.*

KURNOOL DISTRICT.—In the year 1846 a specimen of what was believed to be an ore of cerium obtained, in the lead mine at Gauzalpully, was forwarded to the Asiatic Society by Captain Newbold. Its appearance was described as follows:—"A light-reddish and fawn to peach-colored matrix, which has sometimes a glimmering lustre like that of lepidolite, hardness about 6, but often hard enough to strike fire with steel where it appears to pass into chert, which also appears in the vein stuff. The fracture is evenly granular, inclining to splintery, streak faint pink or reddish-white, opaque." A detailed examination proved it to be a triple carbonate of iron, lime and cerium mixed with galena and traces of other substances. It was doubtful whether it had a definite composition. There is no available information as to the abundance of this mineral. Under the somewhat vague title, "Minéral du Coromandel," a substance taken from India was mentioned by a French writer. It has been analysed and identified with a mineral from the Ural mountains, which has been named Tcheffkinite, and which is a siliciotitanate of cerium, iron, lime, manganese and magnesia. It is possible that this mineral may have been from the same locality as the previous one.

(15) *Magnesite.*

SALEM DISTRICT.—The principal magnesite deposit occupies an area of about 8 or 10 square miles, which is situated 4 miles to the north-west of Salem. It is said to have been first discovered by Dr. Heyne; but in 1825 it was specially brought to the notice of the Madras Government and its employment as cement was proposed. Some years later the proposer of this scheme was rewarded by receiving a gift of Rupees 3,000 from the company in acknowledgment of what was then believed to be a discovery of great importance and value. There are a number of papers which describe the appearances presented by, and the characteristics of, this magnesite. Subsequently, the area was examined by the Geological Survey, and the report enters very fully into a description of its mode of occurrence, and also discusses the question of its origin. The magnesite occurs in veins which are situated in fissures traversing not only magnesian rocks, such as talcose and chloritic schists, but also, though less abundantly, certain hornblendic rocks which, where this is the case, present an altered and earthy appearance. The aspect presented by the two tracts which are included in the above-mentioned area of magnesite-traversed rocks is most peculiar, as the veins stand out in relief, and owing to their crossings and reticulations, look like a solid network stretched over the surface. When freshly broken, or washed by rain, the magnesite is generally of a dazzling white color, otherwise the color is a subdued or dirty gray. The veins are sometimes 2 or 3 feet thick, but are generally much less. Chalcedony often occurs very intimately interspersed and coating the surface, upon which crystals of quartz are sometimes to be seen. Fibrous serpentine or chrysotile is occasionally found, and masses of chromite or chromic iron ore exist in sufficient abundance to have been at one time mined for. Talc is present in some parts of the deposits, but no silicate of magnesia, of the character of meerschaum, has yet been noticed, nor is there any record of jade having been obtained in connection with the hornblende or amphibole rocks, though the occurrence of either or both of these might perhaps be expected. In the western extension of the area there is a band of potstone unaltered, and it is suggested that an impure serpentinous rock, in which a large number of the magnesite veins occur, is merely the altered condition of this potstone, the alter-

ation having been effected by hot acidulated springs which first dissolved a portion of the magnesia, and then deposited it in veins, as the carbonate, and with it the iron chromate, the chromic acid in which may have come from a distant source. There are a number of other localities in both the Salem and Trichinopoly districts, where minor deposits of magnesite, presenting local differences occur. No fossils have been found in the magnesite, and the only index of age is afforded by the fact that the spring sites and the deposit generally have not been affected by marine denudation, so that the formation is subsequent in time to the period when the cretaceous rocks of Trichinopoly were upheaved. At the same time, since some of the deposits occur at a higher level than the cretaceous rocks, it is conceivable that they may date back to an earlier time.

(16) *Steatite.*

SALEM DISTRICT.—At a place called Taundagoundenpolliem, a bed of compact steatite is largely worked as a potstone and great quantities of plates, bowls, &c., are manufactured and are exported as far as Tanjore. Vessels of this and similar materials are used for culinary purposes, especially by high-caste Hindoos throughout India, although they cost much more than earthenware vessels. The properties they possess, and which commend them specially for this purpose, are that they do not communicate any unpleasant taste to food as do unglazed earthenware vessels, and that they will stand great heat, so that they can not only be used for cooking but can be purified by fire—a matter of no slight importance to that class. The manufacture of a similar potstone is also carried on at Yeroomayputty, a village near the end of the valley separating the Kollamullays from the Talamullays. The vessels are fashioned with rude tools and finished in primitive lathes. Steatite is of common occurrence in the schistose rocks of Salem; it was used formerly to make pencils for writing on slates, and at Shorgamullay, north-west of Salem, it has been quarried and made into vessels of various shapes.

(17) *Serpentine.*

VARIOUS DISTRICTS.—Serpentines, and more particularly serpentinous marbles, which have, when wrought, a very ornamental appearance, are found in several localities in the Kurnool and Cuddapah districts. Serpentines occur in parts of Salem, especially in the region where the magnesite deposits are distributed. It may be an open question whether the black potstone of Mysore should not be properly described as serpentine.

(18) *Gypsum.*

TRICHINOPOLY DISTRICT.—This mineral is abundant in many parts of the cretaceous rocks of Trichinopoly. It is generally somewhat impure, occurring in concretionary masses and in plates; it would answer when made into plaster of Paris for taking moulds, but not for casts where whiteness is required; it seldom occurs in sufficient quantity to be worth collecting, though plates of pure selenite are obtainable. It is most abundant in the Ootatoor beds, especially in the belemnite clays to the east of Ootatoor and in the unfossiliferous clay to the north-east of Maravattoor.

CHINGLEPUT DISTRICT.—In the clayey estuarine beds to the north of Madras concretionary masses of gypsum and crystals of selenite occur, but not in any great abundance. Supplies for making plaster of Paris for use in the School of Arts at Madras have, however, been obtained from this source.

NELLORE DISTRICT.—In the eastern coast districts, especially in Nellore, crystals are found of greater purity than those near Madras. They might be collected in the neighbourhood of the canal and forwarded to Madras, where the consumption is increasing.

(19) *Limestone.*

TRICHINOPOLY DISTRICT.—In this district limestones occur both in the older crystalline or metamorphic series, and also in beds of cretaceous age. Two beds of the former have been described, one of which is at Neyvaily, 16 miles north-west of Trichinopoly, and the other at Moottam, 4 miles further north and on the west side of the Eiyaur river. The Neyvaily band is 6 or 7 feet wide, and was traced for upwards of 2 miles; the dip is vertical. The limestome is of a gray colour, passing on the one hand into white, and on the other into pink. It has an obscure foliation, and between the foliæ there are bands of mica and chlorite. The Moottam band was traced for a mile, and is generally of similar character to the other, but the prevailing colour is more commonly pink. The marble when polished presented an ornamental appearance, and the lime prepared from it was of excellent quality. A similar limestone occurs 2 miles to the north of Cullpolliem, on the Madras road. The stone seems however too soft to withstand the solvent action of rain for any great time, and would therefore not be well adapted for outside work. The cretaceous limestones are also soft and suffer much from exposure to rain. They are, however, largely used by the natives in the construction of temples, &c. The chief localities from which stone for these purposes is procured is the ridge at the base of the Ootatoor group, which extends from Poroovoy to Vayalpaudy. Much is obtained also from both the coral reef and sedimentary limestones at Asoor, Maravattoor, Cullpaudy, Shirganpore Varoogoopaud, and other places further south. The coral reef limestone contained from 95 to 98 per cent. of carbonate of lime. In other varieties the amount of calcareous matter varies considerably. As sources of lime, however kankar and sea-shells are principally employed.

COIMBATORE DISTRICT.—In this district a crystalline limestone, similar to that of Trichinopoly, is also found; it is soft, but does not readily decompose. The prevailing colours are pink and gray. The stone is susceptible of receiving a high polish, and would be very ornamental and suitable for internal decoration. In 1857 the most favourable locality for working this marble was the eastern end of a ridge which crosses the Palghaut road. The outcrop here being near the railway line from Madras to Beypore and Calicut, there are special facilities for carriage. What has been used in connection with the railway has proved to be a satisfactory building stone. There being no source of lime on the Neilgherries, the supply for buildings has to be carried up the ghaut; it is burnt in kilns with fuel composed of a mixture of peat and wood.

CUDDAPAH AND KURNOOL DISTRICTS.—The limestones which are found in the two series of rocks called after these two districts are employed to some extent, especially those in the Kurnool series, as building stones, as for instance in the better class of houses in the villages of the Coondair valley. Some of the marbles of the Pulnaud are of good colours, and handsome marbles of different colours might be obtained from the breccia beds in the western scarps of Jummalmudoogoo and the bottom of the states in the Cheyair field. These are sometimes spoken of as the Goontoor marbles, and polished samples of many ornamental varieties are now in the Madras Museum. In certain tracts serpentinous marbles of great beauty occur. Although favourable reports have often been published on all these marbles, no great or steady demand for them has arisen as yet. Some of the limestones are now largely used for burning. Kankar used to be more generally employed. The adoption of the former is mainly due to Railway and Canal Engineers.

(20) *Barytes.*

KURNOOL DISTRICT.—The principal gangue stone in the Gauzalpully or Baswapore lead mine consists of Barytes, and, if required, a large supply could be obtained from that spot.

(21) *Salt (Sodium Chloride).*

VARIOUS DISTRICTS.—The indigenous sources of salt-supply in Madras have always been the salt-pans on the coast districts, where, by the evaporation of sea-water, the salt is obtained. A spontaneously formed salt is also obtained in swamps and lagoons, as for instance at Pandrauca in the Kistna district and Vedaranyam in the Tanjore district. Up to within the past few years a manufacture of salt by lixiviation of saline earths was carried on in the interior districts of Madura, Bellary, Cuddapah, Kurnool, &c. Salt of similar origin used to be manufactured in Mysore. In all cases it was regarded as being inferior in quality to sea-salt, and was only used by the poorest classes. Madras is also to a certain extent dependent on imported salt. A full account of this subject is given in the article on Salt in Volume I.

(22) *Sodium Carbonate.*

SALEM DISTRICT.—In the Baramahaul region, crude carbonate of soda occurs in patches of soil resting upon kankar. By a very simple process of lixiviation and evaporation a pure carbonate, free from any sulphate or chloride, could be obtained. It has been proposed to conduct the manufacture on a large scale, as it is believed that this product would have a better chance of competing in England than some which had formerly been prepared by the reduction of the sulphate, but which had failed to meet with a profitable market. Glass-makers and washer-men are in the habit of manufacturing this carbonate of soda, which supplies a considerable area all round.

(23) *Silica.*

TANJORE DISTRICT.—The lapidaries at Vallam have established a reputation for being skilled workers in different varieties of rock crystal, such as the ordinary pellucid quartz, smoky quartz, cairngorm and amethyst. These with the exception of the last, which is brought from Caungyam in Coimbatore, are all derived from the Cuddalore (tertiary) conglomerates which are made up of the debris of metamorphic rocks. The ornaments which are made consist chiefly of brooch stones cut in the brilliant, rose, and other patterns, but watch-glasses and double convex spectacle lenses are also made.

GODAVERY DISTRICT.—Very large prisms of rock crystal used to be obtained in the bed of the Godavery to the west of Rajahmundry, one being described as 5 inches in diameter.

(24) *Flint.*

TRICHINOPOLY DISTRICT.—Flints, almost undistinguishable from English chalk flints, are found at Coorchicoolam, a few miles south of Vellore and to the south-east of Shendoray. They are believed to exist as a continuous band, not in detached nodules in the highest cretaceous beds, but have not been noticed 'in situ,' though shattered fragments abound on the surface at the localities above indicated. Gun-flints are obtainable in the Bellary district.

(25) *Beryl.*

COIMBATORE DISTRICT.—A beryl mine at Puttoor was visited and described by Captain Newbold some years after mining had ceased. The rock is a vein or dyke of coarse granite, consisting of quartz, cleavlandite felspar garnet, and several kinds of mica ; the greater part of the mass is porphyritic, but in places it has a sort of fibrous structure. The beryl is found in nests in cavities in the cleavlandite. All the easily accessible masses of it had been broken up. The mine was worked for two years about the year 1818. The villagers had previously been in the habit of collecting the beryl and selling it to itinerant jewellers, who again sold it at a high profit in Madras. Aquamarine crystals from Caungyam in Coimbatore were exhibited at the recent Vienna Exhibition. The aquamarine from India, to be seen in collections in Europe, was probably all obtained in Coimbatore. Some crystals of extraordinary size are said to have been sent from India. Captain Newbold alludes to a report that beryl is also found at Vaniyambaudy, at the northern base of the Neilgherries. It is also said to occur in Mysore.

(26) *Garnets.*

INTRODUCTION.—Garnets occur in considerable abundance in most of the districts of Madras, garnetiferous varieties of gneiss being common. Green garnet was found by Newbold at Shunkerrydroog in Salem, and the variety known as cinnamon stone or hessonite near the Seven Cairns hill on the Neilgherries. The dark-brown colophonite is widely distributed.

NELLORE DISTRICT.—Garnet sand is collected in the rivers of Nellore and is sold by the natives as a substitute for emery; staurolite, of which an abundance is to be had near the Choondy hills, has been proposed as a more efficient substitute on account of its greater hardness.

GODAVERY DISTRICT.—Condapilly is in lat. 16° 38', long. 80° 36'. Condapilly has long been famous for its garnets which are obtained, from the detritus of certain bands of massive, garnetiferous, hornblendic gneiss. These garnets are now, however, of little value.

VIZAGAPATAM DISTRICT.—Garnets are obtained in the hills near Galicondah. Indeed the metamorphic rocks all along the Eastern Coast are more commonly garnetiferous than are those in other parts of the peninsula.

(27) *Mica.*

VIZAGAPATAM DISTRICT.—Mica of sufficient size to be worth collecting is obtainable at Codoor, but as it sells at the rate of 24 pounds for the rupee it cannot be of a very good quality. It is abundant.

APPENDIX No. VII.

EXTRACT FROM THE *περίπλους τῆς ἐρυθρᾶς θαλάσσης*, WRITTEN ABOUT 80 A.D., RELATING TO THE COAST OF SOUTHERN INDIA.

Μετὰ δὲ Βαρύγαζα εὐθέως ἡ συναφὴς ἤπειρος ἐκ τοῦ Β.ρέου εἰς τὸν νότον παρεκτείνει. Διὸ καὶ Δαχιναβάδης καλεῖται ἡ χώρα. Δάχανος γὰρ καλεῖται ὁ νότος τῇ αὐτῶν γλώσσῃ. Ταύτης ἡ μὲν ὑπερκειμένη πρὸς ἀνατολὰς μεσόγειος ἐμπεριέχει χώρας τὲ πολλὰς καὶ ἐρήμους, καὶ ὄρη μεγάλα, καὶ θηρίων γένη παντοίων, παρδάλεις τὲ καὶ τίγρεις, καὶ ἐλέφαντας, καὶ δράκοντας ὑπερμεγέθεις, καὶ κροκόττας, καὶ κυνοκεφάλων πλεῖστα γένη. Ἔθνη τὲ πλεῖστα καὶ πολυάνθρωπα, τὰ μέχρι τοῦ Γάγγους. Τῶν δὲ ἐν αὐτῇ τῇ Δαχιναβάδει δύο ἐστὶν τὰ διασημότατα ἐμπόρια ἐπιφαινόμενα, ἀπὸ Βαρυγάζων ἔχοντα ὁδὸν ἡμερῶν εἴκοσι πρὸς νότον. Απὸ ταύτης ὡς ἡμερῶν δέκα πρὸς ἀνατολὴν, ἑτέρα πόλις Ταγάρα μεγίστη. Κατάγεται δὲ ἐξ αὐτῶν πορείαις ἁμαξῶν καὶ ἀνοδίαις μεγίσταις εἰς τὴν Βαρύγαζαν. Ἀπὸ μὲν Πλιθάνων ὀνυχίνη λιθία πλείστη, ἀπὸ δὲ Ταγάρων ὀθόνιων πολὺ χυδαῖον, καὶ σινδόνων παντοῖα, καὶ μολόχινα, καί τινα ἄλλα τοπικῶς ἐκεῖ προχωροῦντα φορτία τῶν παραθαλασσίων μερῶν. Ὁ δὲ ὅλος παράπλους μέχρι τῆς Λιμυρικῆς ἐστὶν σταδίων ἑπτακισχιλίων, πλεῖστοι δὲ εἰς αἰγιαλόν. Τοπικὰ δὲ ἐμπόρια κατὰ τὸ ἑξῆς κείμενα, Ἀκαβάρους, Οὔππαρα, Καλλίενα πόλις, ἡ ἐπὶ τῶν Σαραγάνου τοῦ πρεσβυτέρου χρόνων ἐμπόριον ἔνθεσμον γενόμενον. Μετὰ γὰρ τὸ κατασχεῖν αὐτὸν Σανδάνην, ἐκωλύθη ἐπὶ πολύ. Καὶ γὰρ τὰ ἐκ τύχης εἰς τούτους τοὺς τόπους ἐσβάλλοντα πλοῖα Ἑλληνικὰ, μετὰ φυλακῆς εἰς Βαρύγαζαν εἰσάγεται. Μετὰ δὲ Καλλίεναν ἄλλα ἐμπόρια τοπικὰ, Σήμυλλα, καὶ Μανδαγόρα, καὶ Παλαιπάτμαι, καὶ Μελιζειγάρα, καὶ Βυζαντίων Τοπαρὸν, καὶ Τυραννοσβόας. Εἶτα Σησεκρείεναι λεγόμεναι νῆσοι, καὶ ἡ τῶν Αἰγιδίων, καὶ ἡ τῶν Καινειτῶν, κατὰ τὴν λεγομένην χερσόνησον, καθ' οὓς τόπους εἰσὶν πειραταί. Καὶ μετὰ ταύτην Λευκὴ νῆσος. Εἶτα Νάουρα καὶ Τύνδις τὰ πρῶτα ἐμπόρια τῆς Λιμυρικῆς, καὶ μετὰ ταύτας Μούζιρις, καὶ Νελκύνδα, αἱ νῦν πράσσουσαι. Βασιλείας δὲ ἐστὶν ἡ μὲν Τύνδις Κηπροβότου, κώμη παραθαλάσσιος ἔνσημος, ἡ δὲ Μούζιρις βασιλείας μὲν τῆς αὐτῆς, ἀκμάζουσα δὲ τοῖς ἀπὸ τῆς Ἀριακῆς εἰς αὐτὴν ἐρχομένοις πλοίοις καὶ τοῖς Ἑλληνικοῖς. Κεῖται δὲ παρὰ ποταμὸν, ἀπέχουσα ἀπὸ μὲν Τύνδεως διὰ τοῦ ποταμοῦ καὶ διὰ θαλάσσης σταδίους πεντακοσίους, ἀπὸ δὲ τοῦ κατ' αὐτὴν εἴκοσι. Ἡ δὲ Νελκύνδα σταδίους μὲν ἀπὸ Μουζίρεως ἀπέχει σχεδὸν πεντακοσίους ὁμοίως, διά τε ποταμοῦ καὶ πεζῇ καὶ διὰ θαλάσσης· βασιλείας δέ ἐστιν ἑτέρας τῆς Πανδίονος· κεῖται δὲ καὶ αὐτὴ παρὰ ποταμὸν, ὡσεὶ ἀπὸ σταδίων ἑκατὸν εἴκοσι τῆς θαλάσσης. Ἑτέρα δὲ κατ' αὐτὸ τὸ στόμα τοῦ ποταμοῦ πρόκειται κώμη Βαράκη, εἰς ἣν ἀπὸ Νελκύνδων ἐπὶ τῆς ἀναγωγῆς προκαταβαίνουσι τὰ πλοῖα, καὶ ἐπὶ σάλου διορμίζεται, πρὸς ἀνάληψιν τῶν φορτίων. Διὰ δὲ τὸν ποταμὸν ἅλματα καὶ διάπλους ἔχει ἐλαφρούς. Αὐτοὶ δὲ οἱ βασιλεῖς ἀμφοτέρων τῶν ἐμπορίων ἐν τῇ μεσογείῳ κατοικοῦσι. Καὶ περὶ τοὺς δὲ τοὺς τόπους, τοῖς ἐκ πελάγους σημείοις ἐπιβολῆς εἰσὶν οἱ προαπαντῶντες ὄφεις, μέλανες μὲν καὶ αὐτοὶ τὴν χρόαν, βραχύτεροι δὲ, καὶ δρακοντοειδεῖς τὴν κεφαλὴν, καὶ τοῖς ὄμμασιν αἱματώδεις. Πλεῖ δὲ εἰς τὰ ἐμπόρια ταῦτα πολλὰ πλοῖα, διὰ τὸν ὄγκον καὶ τὸ πλῆθος τοῦ πεπέρεως καὶ τοῦ μαλαβάθρου. Προχωρεῖ δὲ εἰς αὐτὴν προηγουμένως χρήματα πλεῖστα, χρυσόλιθα, ἱματισμὸς ἁπλοῦς οὐ πολὺς, πολύμιτα, στίμη, κοράλλιον, ὕαλος ἀργὴ, χαλκὸς, κασσίτερος, μόλυβδος. Οἶνος δὲ οὐ πολύς, σώζει δὲ τοσοῦτον, ὅσον ἐν Βαρυγάζοις. Σανδαράκη, ἀρσενικόν. Σῖτος δὲ, ὅσος ἀρκέσει τοῖς περὶ τὸ ναυκλήριον, διὰ τὸ μὴ τοὺς ἐμπόρους αὐτῷ χρῆσθαι. Φέρεται δὲ πέπερι, μονογενῶς ἐν ἑνὶ τόπῳ τούτῳ τῷ ἐμπυρίῳ γεννώμενον πολὺ, λεγόμενον Κοττοναρικόν. Φέρεται δὲ καὶ μαργαρίτης ἱκανὸς καὶ διάφορος, καὶ ἐλέφας, καὶ ὀθόνια σηρικὰ, καὶ νάρδος ἡ γαπανικὴ, καὶ μαλάβαθρον ἐκ τῶν ἔσω τόπων εἰς αὐτὴν, καὶ λιθία διαφανὴς παντοία, καὶ ἀδάμας, καὶ ὑάκινθος, καὶ χελώνη, ἥτε Χρυσονητιωτικὴ, καὶ ἡ περὶ τὰς νήσους θηρευομένη, τὰς προκειμένας αὐτῆς τῆς Λιμυρικῆς. Πλέουσι δὲ εἰς αὐτὴν οἱ κατὰ καιρὸν ἀναγόμενοι ἀπ' Αἰγύπτου περὶ τὸν Ἰούλιον μῆνα, ὅς ἐστιν Ἐπιφί. Τοῦτον δὲ ὅλον τὸν εἰρημένον περίπλουν ἀπὸ Κανῆς καὶ εὐδαίμονος Ἀραβίας, οἱ μὲν μικροτέροις πλοίοις περικολπίζοντες ἔπλεον. Πρῶτος δὲ Ἵππαλος κυβερνήτης, κατανοήσας τὴν θέσιν τῶν ἐμπορίων, καὶ τὸ σχῆμα τῆς θαλάσσης, τὸν διὰ πελάγους ἐξεῦρε πλοῦν. Ἀφ' οὗ καὶ τοπικῶς ἐκ τοῦ Ὠκεανοῦ φυσώντων τῶν κατὰ καιρὸν, τῶν παρ' ἡμῖν ἐτησίων, ἐν τῷ Ἰνδικῷ πελάγει λιβόνοτος φαίνεται προσονομάζεσθαι, ἀπὸ πῆς προσηγορίας τοῦ πρώτως ἐξευρηκότος τὸν διάπλουν. Ἀφ' οὗ μέχρι καὶ νῦν τινὲς μὲν εὐθὺς ἀπὸ Κανὴ, τινὲς δὲ ἀπὸ τῶν Ἀρωμάτων ἀφιέντες, οἱ μὲν εἰς Λιμυρικὴν πλέοντες, ἐπὶ πλεῖον τραχηλίζοντες, οἱ δὲ εἰς Βαρύγαζαν, οἱ δὲ εἰς Σκυθίαν, οὐ πλεῖον ἢ τρεῖς ἡμέρας ἀντέχουσι. Καὶ τὸ λοιπὸν παρεπιφέρον πρὸς ἴδιον δρόμον, ἐκ τῆς χώρας ὑψηλοὶ διὰ τῆς ἔξωθεν γῆς παραπλέουσι τοὺς προειρημένους κόλπους. Ἀπ' Ἐλαβακαρὴ τὸ λεγόμενον Πυῤῥὸν ὄρος, ἄλλη παρῆκε χώρα τη * * * κης ἡ Παραλία λεγομένη, πρὸς αὐτὸν τὸν νότον. Ἐν ᾗ καὶ κολύμβησίς ἐστιν ὑπὸ τὸν βασιλέα Πανδίονα πινικοῦ, καὶ πόλις ἡ λεγομένη Κόλχοι. Πρῶτος τόπος Βαλίτα καλούμενος, ὅρμον καλὸν ἔχων, καὶ κώμην παραθαλάσσιον. Ἀπὸ δὲ ταύτης ἐστὶν ἕτερος τόπος τὸ Κομὰρ λεγόμενος. Ἐν ᾧ τόπῳ φρούριον ἐστὶν, καὶ λιμήν. Εἰς ὃν οἱ βουλόμενοι τὸν μέλλοντα αὐτοῖς χρόνον ἱεροὶ γενέσθαι, χῆροι μένουσιν αὐτοῦ, ἐκεῖ ἐρχόμενοι ἀπολύονται. Τὸ δι' αὐτὸ καὶ γυναῖκες. Ἱστορεῖται γὰρ τὴν θεὸν ἐκεῖ ἐπὶ μῆνας κατά τινα χρόνον ἐκεῖ ἀπολελοῦσθαι. Ἀπὸ δὲ τοῦ Κομαρεὶ ἐκτείνουσα χώρα μέχρι Κόλχων, ἐν ᾗ κολύμβησις τοῦ πινικοῦ ἐστιν, ἀπό δὲ κατακρισίμων κατεργάζεται. Πρὸς τὸν νότον, ὑπὸ τὸν Πανδίονά ἐστιν. Μετὰ δὲ Κόλχους ἐκδέχεται πρότερος αἰγιαλὸς ἐν κόλπῳ κείμενος, ἔχων χώραν μεσόγειον λεγόμενος Ἀργάλου. Ἐν ἑνὶ τόπῳ τερονεῖται παρ' αὐτὴν τῆς Ἠπιοδώρου συλλεγόμενον πινικόν. Φέρονταί γὰρ ἐξ αὐτῆς σινδόνες Ἐβαργαρείτιδες λεγόμεναι. Τῶν δὲ καὶ τούτων ἐμπορίων τὲ καὶ ὅρμων, ἐς οὓς οἵ τε ἀπὸ τῆς Λιμυρικῆς καὶ ἀπὸ ἄρκτου πλέοντες κατάγονται, ἐπισημότερα καὶ κατὰ τὸ ἑξῆς κείμενά ἐστιν ἐμπόρια, Καμάρα, καὶ Ποδούκη, καὶ Σωπάτμα. Ἐν οἷς τοπικὰ μέν ἐστιν πλοῖα μέχρι Λιμυρικῆς παραλεγόμενα τὴν γῆν. Ἕτερα δὲ ἐκ μονοξύλων πλοίων μεγίστων ὑφ' ἧς ἐζευγμένων, λεγόμενα Σάγγαρα. Τὰ δὲ εἰς τὴν Χρυσῆν καὶ εἰς τὸν Γάγγην διαίροντα κολανδιόφωντα τὰ μέγιστα. Προχωρεῖ δὲ εἰς τοὺς τόπους τούτους, πάντα τὰ εἰς τὴν Λιμυρικὴν ἐργαζόμενα, καὶ σχεδὸν εἰς αὐτοὺς καταντᾷ. Τὸ δὲ χρῆμα τὸ ἀπ' Αἰγύπτου φερόμενον τῷ παντὶ χρόνῳ, καὶ τὰ πλεῖστα γένη πάντων τῶν ἀπὸ Λιμυρικῆς φερομένων, διὰ ταύτης τῆς παραλίας ἐπιχορηγουμένων. Περὶ δὲ τῶν μετ' αὐτὴν χωρῶν ἤδη πρὸς ἀνατολὴν τοῦ πλοὸς ἀπονεύοντος, εἰς πέλαγος ἔκκειται πρὸς αὐτὴν τὴν δύσιν, νῆσος λεγομένη Παλαισιμύνδου, παρὰ δὲ τοῖς ἀρχαίοις αὐτῶν Ταπροβάνη. Ταύτης τὰ μὲν πρὸς βορέαν ἐστὶν ἡμέρα, καί διαπλεῖται τὸ πλεῖον εἰκοστινῇ, καὶ σχεδὸν εἰς τὸ κατ' αὐτῆς ἀντιπαρακείμενον Ἀζανίας παρήκει. Γίνεται δὲ ἐν αὐτῇ πινικὸν καὶ λιθία διαφανὴς, καὶ σινδόνες, καὶ χελῶναι. Περὶ δὲ τούτους τοὺς τόπους, πολὺ τῆς μεσογείου παρήκουσα, Μασαλία παράκειται χώρα. Γίνονται ἐν αὐτῇ σινδόνες πλεῖσται. Ἀπὸ δὲ ταύτης, εἰς αὐτὴν τὴν ἀνατολὴν διαπεράσαντι τὸν παρακείμενον κόλπον, ἡ Δησαρήνη χώρα, φέρουσα ἐλέφαντα, τὸν λεγόμενον βωσαρή. Καὶ μετ' αὐτὴν, εἰς τὸν βορέαν ἤδη ἀπονεύοντος τοῦ πλοὸς, βάρβαρα πολλὰ ἔθνη, ἐν οἷς οἱ Κιῤῥάδαι, γένος ἀνθρώπων, ἐκτεθλιμμένων τὴν ῥῖνα, ἀγρίων. Καὶ Βαργύσων, ἕτερον ἔθνος. Καὶ τὸ τῶν ἱππιοπροσώπων, μακροπροσώπων, λεγόμενον ἀνθρωποφάγων εἶναι. Μετὰ δὲ ταῦτα, εἰς τὴν ἀνατολὴν καί τὸν ὠκεανὸν ἐν δεξιοῖς ἐχόντων, εὐώνυμα δὲ τὰ λοιπὰ μέρη ἔξωθεν παραπλεόντων, ὁ Γάγγης ἀπαντᾷ, καὶ ἡ περὶ αὐτὸν ἐσχάτη τῆς ἀνατολῆς ἤπειρος ἡ Χρυσῆ. Ποταμὸς δὲ ἐστὶν περὶ αὐτὸν, ὁ Γάγγης λεγόμενος, καὶ αὐτὸς μέγιστος τῶν κατὰ τὴν Ἰνδικὴν, ἀπόβασίν τε καὶ ἀνάβασιν τὴν αὐτὴν ἔχων τῷ Νείλῳ. Καθ' ὃν καὶ ἐμπόριον ἐστὶν ὁμώνυμον τῷ ποταμῷ ὁ Γάγγης, δὶ οὗ φέρεταί τό τε μαλάβαθρον, καὶ ἡ Γαγγιτικὴ νάρδος, καὶ πινικὸν, καὶ σινδόνες αἱ διαφορώταται, αἱ Γαγγιτικαὶ λεγόμεναι. Λέγεται δὲ καὶ χρυσωρύχια περὶ τοὺς τόπους εἶναι, νόμισμά τε χρυσοῦ, ὁ λεγόμενος Κάλτις. Κατ' αὐτὸν δὲ τὸν ποταμὸν νῆσος ἐστὶν Ὠκεάνιος, ἐσχάτη τῶν πρὸς ἀνατολὴν μερῶν τῆς οἰκουμένης, ὑπ' αὐτὸν ἀνέχοντα τὸν ἥλιον, καλουμένη Χρυσῆ, χελώνην ἔχουσα πάντων τῶν κατὰ τὴν Ἐρυθρὰν τόπων ἀρίστην. Μετὰ δὲ ταύτην τὴν χώραν, ὑπ' αὐτὸν ἤδη τὸν βορέαν, ἔξωθεν εἰς Σινῶν τινα τόπον ἀπολη γούσης τῆς θαλάσσης, παράκειται ἐν αὐτῇ πόλις μεσό-

γειος μεγίστη, λεγομένη Θῖνα. Ἀφ' ἧς τό τε ἔριον, καὶ τὸ νῆμα, καὶ τὸ ὀθόνιον τὸ σηρικὸν, εἰς τὸν Βαρύγαζαν διὰ Βάκτρων πεζῇ φέρεται. Καὶ εἰς τὴν Λιμυρικὴν πάλιν διὰ τοῦ Γάγγου ποταμοῦ. Εἰς δὲ τὴν Θῖνα ταύτην οὐκ ἔστιν εὐχερῶς ἀπελθεῖν. Σπανίως γὰρ ἀπ' αὐτῆς τινες οὐ πολλοὶ ἔρχονται. Κεῖται δὲ ὁ τόπος ἐπ' αὐτὴν τὴν μικρὰν ἄρκτον. Λέγεται δὲ συνορίζειν τοῖς ἀπεστραμμένοις μέρεσι τοῦ Πόντου, καὶ τῆς Κασπίας θαλάσσης, καθ' ἣν ἡ παρακειμένη λίμνη Μαιῶτις εἰς τὸν ὠκεανὸν συναναστυμοῦσα. Κατ' ἔτος δὲ παραγίνεται ἐπὶ τὴν συνορίαν τῆς Θίνας ἔθνος τι, τῷ μὲν σώματι κολοβοὶ καὶ σφόδρα πλατυπρόσωποι, σιμοὶ εἰς τέλος, αὐτοὺς δὲ λέγεσθαι Σησάτας, παρομοίους ἀνημέροις. Παραγίνονται σὺν γυναιξὶν καὶ τέκνοις, βαστάζοντες φορτία μεγάλα ἐν ταρπόναις, ὠμαμπελίνων παραπλήσια. Εἶτ' ἐνεπιμένουσιν ἐπί τινα τόπον τῆς συνορίας αὐτῶν, καὶ τῶν ὑπὸ τῆς Θίνας. Καὶ ὀρτάζουσιν ἐπί τινας ἡμέρας, ὑποστρώσαντες ἑαυτοῖς τὰς ταρπόνας, καὶ ἀπαίρουσιν εἰς τὰ ἴδια εἰς τοὺς ἐσωτέρους τόπους. Οἱ δὲ ταῦτα δοκοῦντες τότε παραγίνονται ἐπὶ τοὺς τόπους, καὶ συλλέγουσι τὰ ἐκείνων ὑποστώματα, καὶ ἐξινιάσαντες καλάμους τοὺς λεγομένους πέτρους ἐπὶ λεπτὸν ἐπιδιπλώσαντες τὰ φῦλλα καὶ σφαιροειδῆ ποιοῦντες, διείρουσι ταῖς ἀπὸ τῶν καλάμων ἴναις. Γίνεται δὲ γένη τρία. Ἐκ μὲν τοῦ μείζονος φύλλου, τὸ ἀδρόσφαιρον μαλάβαθρον λεγόμενον. Ἐκ δὲ τοῦ ὑποδεεστέρου, τὸ μεσόσφαιρον. Ἐκ δὲ τοῦ μικροτέρου, τὸ μικρόσφαιρον. Ἔνθεν τὰ τρία μέρη τοῦ μαλαβάθρου γίνεται, καὶ τότε φέρεται εἰς τὴν Ἰνδικὴν ὑπὸ τῶν κατεργαζομένων αὐτά. Τὰ δὲ μετὰ τοὺς τόπους, διά τε ὑσερβολὰς χειμώνων, καὶ πάγους μεγίστους δυσβάτων τὲ τόπων, εἶτα καὶ θείᾳ τινὶ δυνάμει θεῶν, ἀνερεύνητά ἐστιν.

APPENDIX No. VIII.

EXTRACT FROM BOOK III, CHAPTER XXIII, OF THE NOTITIA ORBIS ANTIQUI BY CELLARIUS (AMSTERDAM, 1706) RELATING TO SOUTHERN INDIA.

Hæc ex Alexandri itinere observavimus: reliqua excerpemus ex Ptolemæo. Hic ad mare ab Indo ad Gangem habet multa quidem, sed notabiliora ex iis sunt *Monoglossum*, emporium ad sinum Canthi, in quem Indus fluvius exit: *Barygaza* emporium, paullo intus, Namado fluvio adpositum, *sinum Barygazenum*, cui objacet, denominans: ad quem et *Supara*, Σουπάρα, sita est, quam Lucas Holstenius ad Ortel. p. 137. Ophir Salomonis putat esse. Addit quidem *emporium celeberrimum Ptolemæi;* sed nihil hic de emporio habet, nec aliam dignitatis notam, ut regiæ, vel metropoleos; sed tantum *Supara* scripsit, ut cum aliis in obscurorum censu relinquatur. In extremo sinu, post Bindæ ostium, *Simylla* emporium et promontorium: dein *Hippocura*, *Balipatna*. Et hæc ex *Ariaces Sadinorum* maritima regione. Sequitur ex ἀνδρῶν πειρατῶν, *Piratarum* regione *Byzantium*, *Nanagunæ* ostium, *Nitriæ* (Palat. *Nitra*) de quo mox ex Plinio dicimus: & ex *Limyrices* regionis maritimo tractu *Tyndis* oppidum, *Tundis* in Peutingeriana tabula: *Muziris* [Palat. Μουζίρις *Muziris*] emporium. Plinius de hoc et Nitriis lib. vi, cap. xxiii. *Indos petentibus utilissimum est ab Oceli* [Arabiæ Felicis portu] *egredi. Inde vento Hippalo navigant diebus quadraginta ad primum emporium Indiæ Muzirim, non expetendum propter vicinos piratas, qui obtinent locum nomine Nitrias; neque est abundans mercibus.* At Ptolemæi et Arriani ævo, qui Erythræimaris Periplo Muzirin πλοίοις Ελληνικοῖς, *navibus Græcorum* frequentari dixit, meliores res hujus emporii fuerunt. Laudatur etiam in tabula Peutingeriana cum lacu adjacente, qui *Muziris Lacus* adpellatur. Dicit idem Peripli auctor, κεῖται παρὰ ποταμὸν, *ad fluvium sita est*, quem vero non nominat: Ptolemæus autem *Pseudostomum* vocat, inter Nanagunam et Barin medium, qui proxime post Muzirin in mare devolvitur. *Baris*, fluvii ostia claudunt Limyricen regionem.

Post Barin amnem in *Ajorum* regione est *Elancon* emporium, et *Cottiara* metropolis, ac *Comaria* promontorium et oppidum, in Periplo Erythræi Κόμαρ et Κομαρέι; nunc, servato nomine, Comarin. Ab hoc promontorio *sinus Colchicus* incipit, cui *Colchi*, Κόλχοι, emporium adjacens, nomen dederunt. Jam dicto Periplo p. 33. πόλις ἡ λεγομένη Κόλχοι, *urbs Colchi dicta*: et mox, μέχρι Κόλχων: item μετὰ δὲ Κόλχους, *usque Colchos, post Colchos.* Non longe post in eumdem sinum *Solenus* amnis effluit. Ipse vero sinus Colchicus a sequente sinu Argarico separatur promontorio *Cory*, quod etiam *Calligicum*, *Coliacum*, *Colis* & *Colias* vocatur. Ptolemæus: Κῶρυ ἄκρον, τὸ καὶ Καλλίγικον, *Cory promontorium quod et Calligicum.* Salmasius p. 783; emendat Κωλιακὸν, *Coliacum*: & accolas, quos Strabo lib. xv, p. 475; dixit Κωνιακοὺς, *Coniacos*, idem emendator legit Κωλιακοὺς, *Coliacos;* Dionysius Periegeta, v. 951.

Κεῖθεν δὲ στρεφθεὶς νοτίης προπάροιθε κολώνης
Αἶψά κε Κωλιάδος, μεγάλὴν ἐπὶ νῆσον ἵκοιο
Μητέρα Ταβρογάνην 'Ασιηγενέων ἐλεφάντων.

Sic incidendum, ut Κωλιὰς κολώνη sit *promontorium Coliacum*, quod idem Dionysius v. 1148. *Colidem* dixit:

Πρὸς νότον ἑλκόμενοι παρὰ τέρματα κωλίδος ἄιης.
Ad austrum tracti ad fines Colidis terræ.

Pomponius Mela quoque lib. iii, cap. vii. *a Gange ad Colida.* perverso ordine: et mox, *Colis, alterius patris angulus, initiumque lateris ad meridiem versi.*

Sequitur in Πανδίωνος χώρα, *Pandionis regione* maritima 'Αργείρου, sive Αγάρου πόλις, in Tabula *Argari* urbs, quæ sinum, cui adsidet, *Argaricum* denominat: in quo etiam est *Salur* emporium, & *Nicama* seu *Nigamma* metropolis. Post *Chaberi* (Χαβήρου) sunt ostia, et *Chaberis* (Χάβηρις) emporium; etiam *Sobura*, *Poduce*, *Melange*, emporia: et post *Tynnæ* ostia *Manarpha*, *Cantacossyla*, *Allossygne*, itidem emporia: et in sinu Gangetico oppida *Cottobara*, *Sippara*, et post *Tyndis* ostia, *Mapura*, *Cocala*, *Cosamba;* post quam primum os Gangis est fluvii.

Mediterraneæ sunt plures regiæ: singulis Ptolemæus βασίλειον adscripsit, *Ozene* [Οζήνη] *Bætana*, *Hippocura*, diversa superiori maritima; *Carura*, *Sora*, *Othura*, et ad Gangem *Palibothra:* et metropoles mediterraneæ *Rarassa*, *Sageda*, et propius mare inter Nanagunam et Pseudostomum amnes, *Musopale*. Sed nobilissima harum *Palibothra* est, a pluribus memorata. Plinius lib. vi. cap. xix. *Omnium in India prope, potentiam claritatemque antecedunt Prasii, amplissima urbe ditissimaque Palibothra: unde quidam ipsam gentem Palibothros vocat, immo vero tractum universum a Gange. Regi eorum peditum sexcenta M. equitum triginta M. elephantorum novem M.* Strabo lib. xv. non semel eam laudat, esse ad Gangem sitam, eoque adverso ex mari in eam navigari, figura quadrangulam, longitudine lxxx stadiorum, latitudine xv. τὰ Παλίβοθρα plurali numero adpellat: Ptolemæus Παλιβόθρα βασίλειον, *Palibothra regiam*, et ad gradum xxvii. latitudinis collocavit. Sita ad confluentem Gangis καὶ τοῦ ἄλλου ποταμοῦ, *et alius fluvii*, quod Strabo addit, nec vero alterum illum nominat. Arrianus autem Indic. nomen prodidit cap. x, μεγίστην πόλιν 'Ινδοῖσιν εἶναι Παλίμβοθρα καλεομένην ἐν τῇ Πρασίων γῇ, ἵνα αἱ συμβολαί εἰσι τοῦ τε 'Ερανννοβόα ποταμοῦ καὶ τοῦ Γάγγεω, *maximam Indis urbem esse quæ Palimbothra vocatur, in Prasiorum terra, ubi confluentes sunt Erannoboæ fluminis et Gangis.* Sic scripsit inserta littera Arrianus: etiam Stephanus Παλίμβοθρα πόλις Ινδική. *Prasii*, gens, cujus fuit urbs, etiam Curtio sunt restituti lib. ix, cap. ii. a Salmasio in Solinum p. 699. *Prasiatas* Ptolemæus etiam ad Gangem ponit, sed supra Palibrothos.

De sectis aliquid addendum, quod etiam certa oppida dicuntur possedisse. *Gymnosophistæ* dicebantur Indorum philosophi seu sapientes. Strabo lib. xvi, p. 524. παρὰ τοῖς 'Ινδοῖς οἱ γυμνοσοφισταὶ, *apud Indos gymnosophistæ sunt:* recenset enim singularum gentium sapientes. Idem lib. xv, p. 489. ex Onesicrito philosophos. Indorum dividit in duo genera, τοὺς μὲν Βραχμᾶνας, τοὺς δὲ Γερμᾶνας, *in Brachmanes et Germanes*: illos εὐδοκιμεῖν, *rectius sentire;* hos solitariam unam in silvis agere, vini et Veneris expertes, et quæ alia utriusque generis placita, mores et consuetudines fuere, late ibidem a Strabone exposita. Videntur utrique et hi gymnosophistæ fuisse, ut id commune vocabulum Indicorum sapientum esset: Ptolemæus autem separavit tamquam diversas gentes. *Gymnosophistas* in septemtrione locavit post fluvios illos, inter quos Alexander res gessit, id est post Hypanim seu Hyphasim ab ortu: *Brachmanos Magos* autem in meridie, inter Solenum & Chaberum fluvios, haud longe a mari seu Paralia, quam vocat, id est maritima regione. His dat oppidum, quod *Brachme* vocatur. Sed per varios Indorum populos Brachmanes habitarunt. Plinius lib. vi, cap. xvii. *Multarum gentium cognomen Brachmanæ, quorum Maccocalingæ.* Sic in Mallis urbem habuerunt, quam Alexander expugnavit apud Arrianum lib. vi, cap. vii. Et ad Indum circa Musicani et Sambi regna, aut sub his, oppida Brachmanum erant, Diodorus Siculus lib. xvii, cap. cii. ubi Sambi urbes Alexandrum vastasse dixerat, hoc finit epiphonemate: τὸ μὲν οὖν ἔθνος τῶν ὀνομαζομένων Βραχμάνων τοιάυταις περιέπεσε συμφοραῖς, *Tantas clades gens Brachmanum experta fuit.* Et cap. ciii. *Harmatelia*, τὰ 'Αρματήλια, vocat, ἐσχάτην τῶν Βραχμάνων πάλιν, *postremam Brachmanum urbem*, quam Alexander deditione post gravem oppugnationem cepit. Porphyrius περὶ ἀποχῆς lib. iv, cap. xvii. Brachmanum alios in montibus habitare ait, alios circa Gangem: qui sectam Gymnosophistarum esse ait, oppositam alteri, quam *Samanæos* adpellat. Ibidem singulari numero Βραχμὰν dixit, unde pluralis forma

Βραχμᾶνες, *Brachmanes*: qui Plinio *Brachmanæ* sunt, ut vidimus: Ptolemæo Βραχμανοί, *Brachmani*.

Ultima gens ad Gangem seu ejus ostia erant *Calingæ*, de quibus Plinius lib. vi, cap. xvii. *Calingæ proximi mari:* ibidemque *Maccocalingas* Brachmanum partem facit, seu habitantes inter eos. Et cap. xix. *novissima gente Gangaridum Calingarum: regio Parthalis vocatur.* Hi Gangaridæ discriminis caussa, *Calingæ* cognominantur, quia cis Gangem apud Calingas erant, aut iis permixti: reliqui trans flumen. Idem cap. xx. *promontorium Calingôn*, et adpositum oppidum *Dandagula* refert, sed numerus distantiæ ab ostio Gangis manifesto falsus est.

Liceat huc etiam rescribere *Padæos*, ultimi orientis populum. Herodotus lib. iii, cap. xcix. τῶν Ἰνδῶν πρὸς ἠῶ, *Indorum ad auroram* dicit esse, carnibus crudis vescentes, qui vocentur Παδαῖοι, *Padæi*. Et Tibullus lib. iv. eleg. i. vers. 145.

Ultima vicinus Phœbo tenet arva Padæus.

Vir summus Cl. Salmasius Exerc. Pl. p. 700 hæsitat, an forsan Πανδαῖοι, *Pandæi* in Herodoto legendum sit, quasi a Pandæa, Herculis filia (de qua Arrianus Indic. cap. ix. genus duxerint. Plinius lib. vi, cap. xx. *Ab illis gens Pandæ, sola Indorum regnata feminis. Unam Herculi sexus ejus genitam ferunt, ob idque gratiorem præcipuo regno donatam.* Nihil vero de Herodoti lectione dubito, quia ipse Salmasius fatetur, Tibullum ab Herodoto sumsisse, quod versus etiam præcedens non dubie videtur confirmare. *Padæos* ergo in Herodoto Tibullus legit, cui Pandæ vel Pandæi ad metrum nihil attulissent.

APPENDIX No. IX.

TRANSLATION OF CERTAIN QUOTATIONS FROM MEGASTHENES MADE BY OTHER AUTHORS, AND RELATING TO SOUTHERN INDIA.

"India, which is in shape quadrilateral, has its eastern as well as its western side bounded by the great sea, but on the northern side it is divided by Mount Hemodus from that part of Scythia which is inhabited by those Scythians who are called the Sacae, while the fourth or western side is bounded by the river called the Indus, which is perhaps the largest of all rivers in the world after the Nile." (Diodorus II, 35.)

"Being thus of such vast extent, it seems well-nigh to embrace the whole of the northern tropic zone of the earth, and in fact at the extreme point of India the gnomon of the sun-dial may frequently be observed to cast no shadow, while the constellation of the Bear is by night invisible, and in the remotest parts even Arcturus disappears from view. Consistently with this, it is also stated that shadows there fall to the southward." (Diodorus II, 35.)

"India again possesses many rivers both large and navigable, which, having their sources in the mountains which stretch along the northern frontier, traverse the level country, and not a few of these, after uniting with each other, fall into the river called the Ganges. Now this river, which at its source is 30 stadia broad, flows from north to south, and empties its waters into the ocean forming the eastern boundary of the Gangaridae." (Diodorus II, 37.)

"It is said that India, being of enormous size when taken as a whole, is peopled by races both numerous and diverse, of which not even one was originally of foreign descent, but all were evidently indigenous; and moreover that India neither received a colony from abroad, nor sent out a colony to any other nation." (Diodorus II, 38.)

"The men of greatest learning among the Indians tell certain legends, of which it may be proper to give a brief summary. They relate that in the most primitive times, when the people of the country were still living in villages, Dionysus made his appearance coming from the regions lying to the west, and at the head of a considerable army. He overran the whole of India, as there was no great city capable of resisting his arms. The heat, however, having become excessive, and the soldiers of Dionysus being afflicted with a pestilence, the leader, who was remarkable for his sagacity, carried his troops away from the plains up to the hills. There the army, recruited by the cool breezes and the waters that flowed fresh from the fountains, recovered from sickness. The place among the mountains where Dionysus restored his troops to health was called Meros; from which circumstance, no doubt, the Greeks have transmitted to posterity the legend concerning the god, that Dionysus was bred in his father's thigh." (Diodorus II, 38.)

"Such then are the traditions regarding Dionysus and his descendants current among the Indians who inhabit the hill-country." (Diodorus II, 39.)

"According to Eratosthenes and Megasthenes, who lived with Siburtius the satrap of Arachosia, and who, as he himself tells us, often visited Sandracottus, the king of the Indians, India forms the largest of the four parts into which Southern Asia is divided." (Arrian, Exped. Alex. V, 6.)

"The same writers say that India is bounded on its eastern side, right onwards to the south, by the great ocean; that its northern frontier is formed by the Caucasus range as far as the junction of that range with Taurus; and that the boundary towards the west and the north-west, as far as the great ocean, is formed by the river Indus. A considerable portion of India consists of a level plain, and this, as they conjecture, has been formed from the alluvial deposits of the river,—inferring this from the fact that in other countries plains which are far away from the sea are generally formations of their respective rivers, so that in old times a country was even called by the name of its river. As an instance, there is the so-called plain of the Hermus—a river in Asia, which, flowing from the Mount of Mother Dindymene, falls into the sea near the Æolian city of Smyrna. There is also the Lydian plain of the Caistrus, named after that Lydian river; and another, that of the Caicus, in Mysia; and one also in Caria,—that of the Maeander, which extends even to Miletus, which is an Ionian city. As for Egypt, both the historians Herodotus and Hecataeus (or at any rate the author of the work on Egypt if he was other than Hecataeus) alike agree in declaring it to be the gift of the Nile, so that that country was perhaps even called after the river; for in early times Aegyptus was the name of the river which now-a-days both the Egyptians and other nations call the Nile, as the words of Homer clearly prove, when he says that Menelaus stationed his ships at the mouth of the river Aegyptus. If, then, there is but a single river in each plain, and these rivers, though by no means large, are capable of forming, as they flow to the sea, much new land, by carrying down silt from the uplands, where their sources are, it would be unreasonable to reject the belief in the case of India that a great part of it is a level plain, and that this plain is formed from the silt deposited by the rivers." (Arrian, Exped. Alex. V. 6.)

"With Megasthenes the breadth of India is its extent from east to west, though this is called by others its length. His account is that the breadth at shortest is 16,000 stadia, and its length—by which he means its extent from north to south—is at the narrowest 22,300 stadia." (Arrian Indica, III, 7-8.)

"Again, he (Eratosthenes) wished to show the ignorance of Deimachos, and his want of a practical knowledge of such subjects, evidenced as it was by his thinking that India lay between the autumnal equinox and the winter tropic, and by his contradicting the assertion of Megasthenes that in the southern parts of India the constellation of the Bear disappeared from view, and shadows fell in opposite directions,—phenomena which, he assures us, are never seen in India, thereby exhibiting the sheerest ignorance. He does not agree in this opinion, but accuses Deimachos of ignorance for asserting that the Bears do nowhere in India disappear from sight, nor shadows fall in opposite directions, as Megasthenes supposed." (Strabo, II, i. 19,—p. 76.)

"Megasthenes says that Taprobane is separated from the mainland by a river; that the inhabitants are called Palaeogoni, and that their country is more productive of gold and large pearls than India." (Pliny, Hist. Nat. VI, 24. 1.)

"According to Megasthenes, on a mountain called Nulo there live men whose feet are turned backward and who have eight toes on each foot; while on many of the mountains there lives a race of men having heads like those of dogs, who are clothed with the skins of wild beasts, whose speech is barking, and who being armed with claws, live by hunting and fowling." (Pliny, Hist. Nat. VII, ii. 14.)

"Megasthenes says that the women of the Pandaian realm bear children when they are six years of age." (Phlegon, Mirab. 33.)

"The races which we may enumerate without being tedious, from the chain of Emodus, of which a spur is called Imaus (meaning in the native language snowy) are the Isari, Cosyri, Izgi, and on the hills the Chisiotosagi, and the Brachmanæ, a name comprising many tribes, among which are the Maccocalingae. The river Prinas and the Cainas (which flows into the Ganges) are both navigable. The tribes called Calingæ are nearest the sea, and higher up are the Mandei, and the Malli in whose country is Mount Mallus, the boundary of all that district being the Ganges." (Pliny, Hist. Nat. VI, 21.)

"The royal city of the Calingæ is called Parthalis." (Pliny, Hist. Nat. VI, 21.)

"There is a very large island in the Ganges which is inhabited by a single tribe called Modogalingæ. Beyond are situated the Modubæ, Molindæ, the Uberæ with a handsome town of the same name, the Galmodroesi, Preti, Calissae, Sasuri, Passalae, Colubae, Orxulae, Abali Taluctae. The king of these keeps under arms 50,000 foot-soldiers, 4,000 cavalry, and 400 elephants. Next come the Andarae, a still more powerful race, which possesses numerous villages, and thirty towns defended by walls and towers, and which supplies its king with an army of 100,000 infantry, 2,000 cavalry, and 1,000 elephants. Gold is very abundant

among the Dardae and silver among the Setae. But the Prasii surpass in power and glory every other people, not only in this quarter, but one may say in all India, their capital being Palibothra, a very large and wealthy city, after which some call the people itself the Palibothri, —nay, even the whole tract along the Ganges. Their king has in his pay a standing army of 600,000 foot-soldiers, 30,000 cavalry, and 9,000 elephants: whence may be formed some conjecture as to the vastness of his resources. After these, but more inland, are the Monedes and Suari, in whose country is Mount Maleus, on which shadows fall towards the north in winter, and towards the south in summer, for six months alternately. Baeton asserts that the north pole in these parts is seen but once in the year and only for fifteen days; while Megasthenes says that the same thing happens in many parts of India. The south pole is called by the Indians Dramasa. The river Jomanes flows through the Palibothri into the Ganges between the towns Methora and Carisobora. In the parts which lie southward from the Ganges the inhabitants, already swarthy, are deeply coloured by the sun, though not scorched black like the Ethiopians. The nearer they approach the Indus the more plainly does their complexion betray the influence of the sun. The Indus skirts the frontiers of the Prasii, whose mountain tracts are said to be inhabited by the pygmies. Artemidorus sets down the distance between the two rivers at 121 miles." (Pliny, Hist. Nat. VI, 21.)

"From the mouth of the Ganges to Cape Calingon and the town of Dandagula 625 miles; to Tropina 1,225." (Pliny, Hist. Nat. VI, 21.)

"Next follow the Nareæ enclosed by the loftiest of Indian mountains, Capitalia. The inhabitants on the other side of this mountain work extensive mines of gold and silver. Next are the Oraturæ, whose king has only ten elephants, though he has a very strong force of infantry. Next again are the Varetatæ, subject to a king, who keep no elephants, but trust entirely to their horse and foot. Then the Odombœræ; the Salabastræ; the Horatæ, who have a fine city, defended by marshes which serve as a ditch, wherein crocodiles are kept, which, having a great avidity for human flesh, prevent all access to the city except by a bridge. And another city of theirs is much admired—Automela, which, being seated on the coast at the confluence of five rivers, is a noble emporium of trade The king is master of 1,600 elephants, 150,000 foot, and 5,000 cavalry. The poorer king of the Charmæ has but sixty elephants, and his force otherwise is insignificant. Next come the Pandæ, the only race in India ruled by women. They say that Hercules having but one daughter, who was on that account all the more beloved, endowed her with a noble kingdom. Her descendants rule over 300 cities, and command an army of 150,000 foot and 500 elephants." (Pliny, Hist. Nat. VI, 21.)

"The Pandæan nation is governed by females, and their first queen is said to have been the daughter of Hercules." (Solinus, 52.)

"Hercules begat a daughter in India whom he called Pandaia. To her he assigned that portion of India which lies to southward and extends to the sea, while he distributed the people subject to her rule into 365 villages, giving orders that one village should each day bring to the treasury the royal tribute, so that the queen might always have the assistance of those men whose turn it was to pay the tribute in coercing those who for the time being were defaulters in their payments." (Polyænus, Strateg. I, 3, 4.)

"In the sea which has been mentioned they say there is a very large island, of which, as I hear, the name is Taprobane. From what I can learn, it appears to be a very long and mountainous island, having a length of 7,000 stadia and a breadth of 5,000. It has not, however, any cities, but only villages, of which the number amounts to 750. The houses in which the inhabitants lodge themselves are made of wood, and sometimes also of reeds." (Ælian, Hist. Anim. XVI, 17.)

"The island then in the great sea, which they call Taprobane, has palm-groves, where the trees are planted with wonderful regularity all in a row; in the way we see the keepers of pleasure-parks plant out shady trees in the choicest spots. It has also herds of elephants, which are there very numerous and of the largest size. These island elephants are more powerful than those of the mainland, and in appearance larger, and may be pronounced to be in every possible way more intelligent. The islanders export them to the mainland opposite in boats, which they construct expressly for this traffic from wood supplied by the thickets of the island, and they dispose of their cargoes to the king of the Kalingai." (Ælian, Hist. Anim. XVI, 18.)

"Now if any one wishes to state a reason to account for the number and magnitude of the Indian rivers let him state it. As for myself I have written on this point, as on others, from hearsay; for Megasthenes has given the names even of other rivers which beyond both the Ganges and the Indus pour their waters into the Eastern Ocean and the outer basin of the Southern Ocean, so that he asserts that there are eight-and-fifty Indian rivers which are all of them navigable." (Arrian, Indika V.)

"This Heracles is held in especial honour by the Sourasenі, an Indian tribe who possess two large cities, Methora and Cleisobora, and through whose country flows a navigable river called the Iobares. But the dress which this Heracles wore Megasthenes tells us, resembled that of the Theban Heracles, as the Indians themselves admit. It is further said that he had a very numerous progeny of male children born to him in India (for, like his Theban namesake, he married many wives), but that he had only one daughter. The name of this child was Pandia, and the land in which she was born, and with the sovereignty of which Heracles entrusted her, was called after her name, Pandaia, and she received from the hands of her father 500 elephants, a force of cavalry 4,000 strong and another of infantry consisting of about 130,000 men. Some Indian writers say further of Heracles that when he was going over the world and ridding land and sea of whatever evil monsters infested them, he found in the sea an ornament for women, which even to this day the Indian traders who bring us their wares eagerly buy up and carry away to foreign markets, while it is even more eagerly bought up by the wealthy Romans of to-day, as it was wont to be by the wealthy Greeks long ago. This article is the sea-pearl, called in the Indian tongue, margarita. But Heracles, it is said, appreciating its beauty as a wearing ornament, caused it to be brought from all the sea into India, that he might adorn with it the person of his daughter." (Arrian, Indika VIII.)

APPENDIX No. X.

CONSPECTUS OF LATITUDES AND LONGITUDES ARRANGED BY DISTRICTS.

District.	Place.	Latitude.	Longitude.
Arcot, North.	Arcot Fort, Nawab's House	12° 54′ 16″	79° 22′ 31″
	Chittore Village ...	13 13 0	79 8 16
	Vellore Fort Pagoda	12 55 7	79 10 42
Arcot, South.	Chitlaputt Mosque	12 27 59	79 23 30
	Cuddalore Flag Staff	11 43 24	79 49 6
	Jinjee Droog ...	12 15 19	79 26 8
	Porto Novo Flag Staff	11 29 25	79 48 13
	Trinomalee Pagoda	12 13 56	79 6 43
	Vriddhachellam Highest Pagoda.	11 31 4	79 21 39
Bellary ...	Bellary Fort Survey Station ...	15 8 57	76 57 12
	Chennampully Droog Redoubt.	15 18 12	77 38 11
	Dharmavaram Fort Building ...	14 24 35	77 45 50
	Gooty Droog Flag Staff	15 6 53	77 41 32
	Tadmurry Fort Cavalier ...	14 33 47	77 53 50
	Vajracaroor Fort.	15 1 44	77 25 34
Canara, South.	Coondapore Town	13 38 20	74 44 1
	Mangalore Fort Flag Staff ...	12 51 40	74 32 38
	Mangalore Light house	12 52 17	74 53 10
Chingleput...	Chingleput Fort Flag Staff ...	12 42 1	80 1 13
	Madras Light-house	13 5 11	80 19 53
	Observatory Merdn. Station	13 4 6	80 17 22
	Madras St. George's Cathedral ...	13 3 5	80 17 43
	Madras St. George's Fort Flag Staff	13 4 44	80 19 49
	Madras St. Thomas' Fort Flag Staff.	13 0 18	80 14 11
	Poolicat Church ...	13 25 8	80 21 24
	Do. Light-house	13 25 15	80 22 8
Coimbatore.	Coimbatore Palace.	10 59 41	76 59 46
	Dharapooram Fort Cavalier ...	10 44 35	77 34 38
	Caroor Pagoda ...	10 57 42	78 7 16
Cuddapah...	Cuddapah Judge's Court	14 28 17	78 51 53
	Cumbum Town ...	15 33 45	79 9 1
	Poonganore do. ...	13 21 50	78 35 46
Ganjam ...	Russellcondah ...	19 55 39	84 36 23
	Berhampore, Mr. Phillip's House.	19 18 15	84 51 14
	Chetterpore Tree.	19 21 20	85 1 22
	Calingapatam Flag Staff	18 20 36	84 9 59
	Ganjam Fort Survey Station ...	19 22 30	85 5 59
	Gopalpore Bungalow	19 13 0	84 56 29
Godavery ...	Ellore	16 42 55	81 9 6
	Coringa Light-house	16 49 5	82 20 0
	Rajahmundry ...	17 0 29	81 48 36
	Dowlaishweram ...	16 57 52	81 50 29

District.	Place.	Latitude.	Longitude.
Kistna ...	Condapillydroog Pagoda ...	16° 37′ 59″	80° 34′ 17″
	Goontoor Mosque Flag Staff ...	16 17 51	80 29 45
	Masulipatam Flag Staff.	16 9 8	81 11 38
	Do. Fort Church ...	16 9 0	81 11 29
Kurnool ...	Kurnool Judge's Court	15 49 32	78 4 33
Madras ...	Light-house	13 5 11	80 19 53
	Observatory Merdn. Station ...	13 4 6	80 17 22
	St. George's Cathedral	13 3 5	80 17 43
	St. George's Fort Flag Staff ...	13 4 44	80 19 49
Madura ...	Dindigul Flag Staff	10 21 39	78 0 17
	Madura S. Gopooram of Temple ...	9 55 4	78 9 42
	Ramagherry Hill Palace	10 38 13	78 9 47
Malabar ...	Beypore Saw Mill.	11 10 3	75 50 44
	Calicut Flag Staff.	11 15 9	75 48 48
	Cannanore Flag Staff	11 51 12	75 24 44
	Quilon Town ...	8 53 30	76 38 20
	Tellicherry Flag Staff	11 44 53	75 31 38
Nellore ...	Armegam Light-house	13 53 8	80 14 49
	Nellore Church Tower	14 26 38	80 1 28
	Nellore Pagoda ...	14 28 1	80 1 40
	Oodayagherry Droog Station	14 51 56	79 19 5
	Vencatagherry Pagoda	13 57 12	79 37 19
Salem ...	Salem Fort S. W. Angle	11 39 10	78 11 47
	Salem Railway Station	11 40 9	78 9 21
	Womalore Fort Highest Cavalier	11 44 10	78 4 40
Tanjore ...	Nagore Flag Staff.	10 49 26	79 53 24
	Negapatam Flag Staff	10 45 37	79 53 28
	Tanjore Great Pagoda	11 1 37	79 53 44
Tinnevelly.	Palamcottah Fort Flag Staff ...	8 43 33	77 46 11
	Tinnevelly Pagoda Top	8 43 39	77 43 51
	Tuticorin Flag Staff	8 48 3	78 1 27
Trichinopoly	Trichinopoly Survey Station ...	10 49 45	78 44 11
	Trivellary Rock Pagoda	10 57 26	78 42 33
Vizagapatam	Bimlipatam Survey Station	17 53 25	83 29 12
	Chicacole Mosque N. Spire ...	18 17 39	83 56 33
	Chittivalasa Sugar Factory ...	17 55 55	83 29 38
	Vizagapatam Fort.	17 41 34	83 20 12
	Vizianagram Rajah's House	18 6 55	83 26 47
	Waltair Racket Court	17 43 9	83 21 12

APPENDIX No. XI.

TOPOGRAPHICAL DETAILS RELATING TO THE PRESIDENCY.

(1) PRINCIPAL TOWNS IN THE PRESIDENCY.

Towns along the East Coast, north to south, with Districts in which situated.

Ganjam * (Ganjámu, *Tel.*)—Ganjam.
Calingapatam* (Kalingapatnamu, *Tel.*)—Ganjam.
Chicacole* (Shríkákulamu, *Tel.*)—Ganjam.
Vizagapatam * (Vishákhapatnamu, *Tel.*)—Vizagapatam.
Cocanada * (Kákináda, *Tel.*)—Godavery.
Masulipatam * (Machilípattnamu, *Tel.*)—Kistna.
Madras * (Shennappattanam, *Tam.*)—Madras.
Pondicherry * (Puthuççéri, *Tam.*)—South Arcot.
Cuddalore * (Kúdalúr, *Tam.*)—South Arcot.
Caricaul (Káraikkál, *Tam.*)—Tanjore.
Negapatam* (Nágappattanam, *Tam.*)—Tanjore.
Tuticorin * (Túttukkudi, *Tam.*)—Tinnevelly.

Towns along the West Coast, north to south, with Districts in which situated.

Mangalore * (Mangalúru, *Can.*)—South Canara.
Cannanore* (Kannúra, *Mal*).—Malabar.
Tellicherry * (Talashsheri, *Mal.*)—Malabar.
Mahé (Mayyazhi)--Malabar.
Calicut* (Kozhikkóta, *Mal.*)—Malabar.
Beypore * (Béppúra, *Mal.*)—Malabar.
Ponnany (Ponnáni, *Mal.* Ponáni*)—Malabar.
Cochin * (Koççi, *Mal.*)—Malabar.
Quilon * (Kollam, *Mal.*)—Travancore.
Trivandrum * (Tiruvánantapuram, *Mal.*)—Travancore.

Inland Towns arranged alphabetically, with Districts in which situated.

Adony (Ádaváni, *Tel.* Ádóni *)—Bellary.
Anjengo * (Anchingal, *Mal.*)—Malabar.
Aska * (Ashiká, *Tel.*)—Ganjam.
Arcot* (Árkkádu, *Tam.*)—North Arcot.
Bellary * (Ballári, *Tel.*)—Bellary.
Berhampore * (Brahmapuramu, *Tel.*)—Ganjam.
Bezwada (Bedzaváda, *Tel.* Bezváda*)—Kistna.
Chingleput * (Shengalppattu, *Tam.*)—Chingleput.
Chittore (Shittúru, *Tam.* Chittoor*)—North Arcot.
Coimbatore * (Kóyamuttúr, *Tam.*)—Coimbatore.
Combaconam (Kumbagónam, *Tam.* Kumbakónam *)—Tanjore.
Conjeeveram * (Kánjíppuram, *Tam.*)—Chingleput.
Coonoor * (Kunnúr, *Tam.*)—Neilgherries.
Cuddapah * (Kadapa, *Tel.*)—Cuddapah.
Dindigul*(Tindukkal, *Tam.*)—Madura.
Ellore * (Ellúru, *Tel.*)—Godavery.
Erode * (Íródu, *Tam.*)—Coimbatore.
Goontoor (Guntúru, *Tel.* Guntúr*)—Kistna.
Gooty * (Gutti, *Tel.*)—Bellary.
Humpy (Hampi,* *Tel.*)—Bellary.
Kurnool * (Karnúlu, *Tel.*)—Kurnool.
Madura * (Mathurai, *Tam.*)—Madura.
Mercara * (Madhukeri, *Can.*)—Coorg.
Nellore * (Nellúru, *Tel.*)—Nellore.
Ootacamund * (Ottagaimandu, *Tam.*)—Neilgherries.
Palamcottah * (Pálaiyangóttai, *Tam.*)—Tinnevelly.
Palghaut (Pálakkáta, *Mal.* Pálghat*)—Malabar.
Poodoocottah (Puthukkóttai, *Tam.* Pudukóta*—Trichinopoly.
Porto Novo * (Parangippéttai, *Tam.*)—South Arcot.
Poolicat (Pazhavérkkádu, *Tam.* Pulicat*)—Chingleput.
Rajahmundry * (Rájamahéndravaramu, *Tel.*)—Godavery.
Sydapett (Shaithappéttai, *Tam.* Saidápet *)—Chingleput.
Salem * (Shélam, *Tam.*)—Salem.
Shreerungam (Shirírangam, *Tam.* Srírangam,*)—Trichinopoly.
Tadpatry (Tádipatri, *Tel.* Tadpatri *)—Anantapore.
Tanjore * (Tanjávúr, *Tam.*)—Tanjore.
Tinnevelly * (Tirunelvéli, *Tam.*)—Tinnevelly.
Tripatore (Tiruppattúr, *Tam.* Tirupatúr,*)—Salem.
Trichinopoly * (Tiruççináppalli, *Tam.*)—Trichinopoly.
Trinomallee (Tiruvannámalai,* *Tam.*)—South Arcot.
Tripatty (Tiruppathi, *Tam.* Tirupati,*)— North Arcot.
Vellore * (Vélúr, *Tam.*)—North Arcot.
Vizianagram * (Vijayanagaramu, *Tel.*)—Vizagapatam.
Wandiwash * (Vandavási, *Tam.*)—North Arcot.
Wynaud (Vayanátu, *Mal.* Wynaad *)—Malabar.
Yercaud * (Erkkád, *Tam.*)—Salem.

(2) THE 227 TOWNS AS DEFINED BY THE RECENT CENSUS SHOWN IN THE ORDER OF THEIR POPULATION, WITH PARTICULARS.

M. = Municipality; Cl. = Station of a European Civil Officer holding a Judicial, Magisterial, or Revenue Court; Ca. = Cantonment.

Madras* (Shennappattanam, *Tam.*), City, M. Cl. Ca.	405,848
Trichinopoly * (Tiruççináppalli, *Tam.*), M. Cl. Ca.	84,449
Madura * (Mathurai, *Tam.*), M. Cl.	73,807
Calicut * (Kozhikkóta, *Mal.*), M. Cl. Ca. ...	57,085
Tanjore * (Tanjávúr, *Tam.*), M. Cl.	54,745
Negapatam * (Nágappattanam, *Tam.*), M. Cl. ...	53,855
Bellary * (Ballári, *Tel.*), M. Cl. Ca.	53,460
Salem * (Shélam, *Tam.*), M. Cl.	50,667
Combaconam (Kumbagónam, *Tam.* Kumbakónam*), M. Cl.	50,098
Cuddalore * (Kúdalúr, *Tam.*), M. Cl.	43,545
Coimbatore * (Kóyamuttúr, *Tam.*), M. Cl. ...	38,967
Vellore * (Vélúr, *Tam.*), M. Cl. Ca.	37,491
Conjeeveram * (Kánjíppuram, *Tam.*), M. ...	37,275
Palghaut (Pálakkáta, *Mal.* Pálghat, *), M. Cl. ...	36,339
Bunder (Bandaru, *Tel.* Bandar,*), M. Cl. ...	35,056
Mangalore * (Mangalúru, *Can.*), M. Cl. Ca. ...	32,099
Vizagapatam * (Vishákhapatnamu, *Tel.*), M. Cl. Ca.	30,291
Cocanada * (Kákináda, *Tel.*), M. Cl.	28,856
Nellore * (Nellúru, *Tel.*), M. Cl.	27,505
Tellicherry * (Talashsheri, *Mal.*), M. Cl. ...	26,410
Cannanore * (Kannúra, *Mal.*), M. Ca.	26,386
Ellore * (Ellúru, *Tel.*), M. Cl.	25,092
Rajahmundry * (Rájamahéndravaramu, *Tel.*), M. Cl.	24,555
Berhampore * (Brahmapuramu, *Tel.*), M. Cl. Ca.	23,599
Tinnevelly * (Tirunelvéli, *Tam.*), M.	23,221
Mayavaram (Máyavaram,* *Tam.*), M.	23,044
Vizianagram * (Vijayanagaramu, *Tel.*), M. Cl. Ca.	22,577
Adony (Ádaváni, *Tel.* Ádóni,*), M.	22,441
Kurnool * (Karnúlu, *Tel.*), M. Cl.	20,329
Panrooty (Pannurutti, *Tam.* Panruti,*)	20,172
Chidambaram* (Shithambaram, *Tam.*) M. ...	19,837

Shreerungam (Shirírangam, *Tam.* Srírangam *), M.	19,773
Goontoor (Guntúru, *Tel.* Guntúr *), M. Cl.	19,646
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *), M.	19,409
Cuddapah * (Kadapa, *Tel.*), M. Cl.	18,982
Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur *)	18,256
Palamcottah * (Pálaiyangóttai, *Tam.*), M. Cl.	17,964
Periyacoolam (Periyakkulam, *Tam.* Periyakulam *)	16,446
Chicacole * (Shríkákulamu, *Tel.*), M. Cl.	16,355
Tuticorin * (Túttukkudi, *Tam.*), M. Cl.	16,281
Cochin * (Koççi, *Mal.*), M.	15,698
Vaniyambaudy (Vániyambádi,* *Tam.*)	15,426
Poodoocottah (Puthukkóttai, *Tam.* Pudukóta *)	15,384
St. Thomas' Mount * (Parangimalai, *Tam.*), Ca.	15,013
Coolashekharaputnam (Kulaségarappattanam, *Tam.* Kulasekharapatnam *)	14,972
Bobbily (Bobbili,* *Tel.*)	14,943
Tripatore (Tiruppattúr, *Tam.* Tirupatúr *), Cl.	14,278
Dindigul * (Tindukkal, *Tam.*), M. Cl.	14,182
Shivagherry (Shivakkiri, *Tam.* Sivagiri*)	13,632
Ankapully (Anakápalle,* *Tel.*), M.	13,341
Tripatty (Tiruppathi, *Tam.* Tirupati *)	13,232
Pulney (Pazhani, *Tam.* Palni *)	12,974
Shendamungalam (Shéndamangalam, *Tam.*)	12,575
Ootacamund * (Ottagaimandu, *Tam.*), M. Cl.	12,335
Veeravanallore (Víravanallúr, *Tam.*)	12,318
Rajahpolliem (Rásáppálaiyam, *Tam.*)	12,021
Tencausy (Tengási, *Tam.* Tenkási *)	11,987
Keelakaray (Kizhakkarai, *Tam.* Kílakarai *)	11,887
Saulore (Sálúru, *Tel.* Sálúr *)	11,856
Cauyalputnam (Káyalppattanam, *Tam.* Káyalpatnam *)	11,806
Pittapore (Pit'hápuramu, *Tel.* Pithápuram *)	11,593
Peddapore (Peddápuramu, *Tel.* Peddápuram *)	11,278
Culladacoorchy (Kalladakkuriççi, *Tam.*)	10,936
Shivacausy (Shivakkási, *Tam.* Sivakási *)	10,833
Aroopoocottah (Aruppukkóttai, *Tam.* Aruppukóta *)	10,831
Parlakimedy* (Parlákimedi,* *Tel.*)	10,812
Arcot * (Árkkádu, *Tam.*)	10,718
Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam*)	10,641
Ramnaud (Rámanáthappuram, *Tam.* Ramnad *), Cl.	10,519
Amboor (Ámúr, *Tam.* Ambúr *)	10,390
Wallajahnugger (Válásánagaram, *Tam.* Wálajánagar *), M.	10,387
Sydapett (Shaitháppéttai, *Tam.* Saidápet *), Cl.	10,290
Hospett (Hosapéte, *Can.* Hospet *)	10,219
Juggayapett (Jaggayyapéta, *Tel.* Jaggayapet *)	10,072
Calastry (Kálahasti,* *Tel.*)	9,935
Parvatipore (Párvatípuramu, *Tel.* Párvatipur *)	9,933
Erode * (Íródu, *Tam.*), M. Cl.	9,864
Kamptee * (Kámthí, *Centr. Pro.*)	9,828
Trinomallee (Tiruvannámalai,* *Tam.*)	9,592
Palcondah (Pálakonda, *Tel.* Pálkonda *)	9,531
Viroothooputty (Viruthuppatti, *Tam.* Virudupati *)	9,506
Bezwada (Bedzaváda, *Tel.* Bezváda *), Cl.	9,336
Paramacoody (Paramakkudi, *Tam.* Paramakudi *).	9,287
Caroor (Karúr,* *Tam.*), M.	9,205
Ongole * (Vangólu, *Tel.*), M. Cl.	9,200
Tiroovalore (Tiruválúr,* *Tam.*)	9,181
Trivettore (Tiruvattiyúr, *Tam.*)	9,098
Chiraula (Chírála, *Tel.* Chirala *)	9,061
Nundiaul (Nandyála, *Tel.* Nandyál *)	8,907
Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *)	8,856
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *)	8,770
Royadroog (Ráyadurgamu, *Tel.* Ráyadrug *)	8,766
Budwail (Badvélu, *Tel.* Badvél *)	8,638
Amalaupooram (Amalápuramu, *Tel.* Amalápuram*)	8,622
Tadpatry (Tádipatri, *Tel.* Tadpatri *)	8,585
Bimlipatam * (Bhímunipatnamu, *Tel.*), M.	8,582
Trivaudy (Tiruváthi, *Tam.* Tiruvádi *)	8,473
Collegaul (Kollégálam, *Tam.* Kollegál *)	8,462
Devicottah (Tevikkóttai, *Tam.*)	8,451
Shivagunga (Shivakkangai, *Tam.* Sivaganga *)	8,343
Ahtoor (Áttúr, *Tam.* Atúr *)	8,334
Villoopooram (Villupuram,* *Tam.*)	8,241
Narsannapett (Narasannapéta, *Tel.* Narsannapet *)	8,230
Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *)	8,212
Dowlaishweram * (Dhavaléshvaramu, *Tel.*)	8,002
Vencatagherry (Venkatagiri,* *Tel.*)	7,989
Razipore (Rásippuram, *Tam.*)	7,969
Porto Novo * (Parangippéttai, *Tam.*)	7,823
Shreeveicoontam (Shírivaikkundam, *Tam.* Srívaikuntham *)	7,781
Poonganore (Punganúru, *Tel.* Punganúr *)	7,672
Ragoonathapooram (Raghunádhapuramu, *Tel.* Raghunáthapuram *)	7,634
Shermadevy (Shérmáthévi, *Tam.* Shermádevi *) Cl.	7,624
Trichendore (Tiruççendúr, *Tam.* Tiruchendúr *)	7,582
Palcole (Pálakollu, *Tel.* Pálakol *)	7,510
Cadayanallore (Kadaiyanallúr, *Tam.*)	7,467
Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *), Cl.	7,347
Pettah, Pauthaputnam (Péttai, Páthappattanam, *Tam.*)	7,321
Dharaupooram (Tárápuram, *Tam.* Dhárápuram *).	7,310
Valangimaun (Valangimán, *Tam.*)	7,285
Calacaud (Kalakkádu, *Tam.* Kalakád *)	7,281
Valavanoor (Valavanúr, *Tam.*)	7,231
Narsapore (Narasápuramu, *Tel.* Narsápur *)	7,184
Cumbum * (Kambhamu, *Tel.*), Cl.	7,170
Vullam (Vallam,* *Tam.*)	7,168
Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *)	7,090
Cassimcote (Kashimkóta, *Tel.* Kasimkót *)	7,078
Ammapett (Ammáppéttai, *Tam.* Ammápet*)	7,003
Yemmiganore (Yemmiganúru, *Tel.* Yemmiganúr*)	6,963
Melapolliem (Mélappálaiyam, *Tam.* Melapálaiyam *)	6,875
Hindoopore (Hindupuramu, *Tel.* Hindupur *)	6,694
Toorayore (Turaiyúr,* *Tam.*)	6,637
Cundoocore (Kandukúru, *Tel.* Kandukúr *)	6,601
Hurpanhully (Harpanahalli,* *Can.*)	6,536
Proddootore (Proddutúru, *Tel.* Proddutur *)	6,510
Addanky (Addanki,* *Tel.*)	6,481
Shettore (Shéttúr, *Tam.* Sétúr *)	6,443
Yaudicy (Yádiki, *Tel.*)	6,409
Pullaputty (Pallappatti, *Tam.*)	6,351
Trivellore (Tiruvallúr,* *Tam.*)	6,242
Ooravacondah (Uravakonda,* *Tel.*)	6,203
Porayaur (Poraiyár, *Tam.*)	6,189
Sirootondanallore (Shiruttondanallúr, *Tam.*)	6,087
Baupatla (Bápatla,* *Tel.*)	6,086
Watrap (Varttiráyiruppu, *Tam.* Vartiráyiruppu *)	6,053
Alwar Tiroonagary (Ázhvárttirunagari, *Tam.* Alvár Tirunagari *)	5,956
Shaccamputty (Shakkambatti, *Tam.*)	5,945
Bhawany (Paváni, *Tam.* Bhaváni *)	5,930
Dharmavaram * (Dharmavaramu, *Tel.*)	5,916
Trichengode (Tiruççengódu, *Tam.* Tiruchengód *)	5,889
Ariyaloor (Ariyalúr,* *Tam.*)	5,871
Oossoor (Hosúru, *Can.* Hosúr *), Cl.	5,869
Vempully (Vempalle, *Tel.*)	5,811
Chittore (Shittúru, *Tam.* Chittoor *), Cl.	5,809
Ahtoor (Áttúr, *Tam.* Atúr *)	5,744
Oodayarpolliem (Udaiyárppálaiyam, *Tam.* Udayárpálaiyam *)	5,703
Madanapully (Madanapalle,* *Tel.*), Cl.	5,700
Noozveed (Nújivídu, *Tel.* Núzvíd *)	5,657
Poloor (Pólúru, *Tam.* Pólúr *)	5,649
Mungalagherry (Mangalagiri,* *Tel.*)	5,617
Chingleput * (Shengalppattu, *Tam.*), Cl.	5,617
Sullapully (Isallapalle, *Tel.*)	5,615
Peroongoody (Perungudi, *Tam.*)	5,575
Ichapore (Iççápuramu, *Tel.* Ichápur *)	5,528
Vulliyoor (Valliyúr, *Tam.*)	5,459
Gooty * (Gutti, *Tel.*), Cl.	5,373
Penoocondah (Penukonda,* *Tel.*), Cl.	5,331
Srungavarapoocote (Shringavarapukóta, *Tel.*)	5,329
Tiroonageswaram (Tirunágésuvaram, *Tam.*)	5,275
Radhaupooram (Ráthappuram, *Tam.* Rádhápuram *)	5,268
Melpavoor (Mélappavúr, *Tam.*)	5,262
Paumidy (Pámidi, *Tel.*)	5,260
Veeravausaram (Víravásaramu, *Tel.* Víravásaram *)	5,257
Vadaputty Melaputty (Vadappattimelappatti, *Tam.*)	5,190
Yeroovaudy (Eruvádi, *Tam.*)	5,171
Yettiyapooram (Ettaiyáppuram, *Tam.* Etaiyápuram *)	5,167
Cotoor (Kóttúr, *Tam.*)	5,156
Namcull (Námakkal, *Tam.* Námakal *)	5,147
Vasoodevanallore (Vásuthévanallúr, *Tam.* Vásudevanallúr *)	5,142
Shatauncoolam (Sháttángulam, *Tam.* Sátánkulam *)	5,116
Pollachy (Polláççi, *Tam.* Polláchi *), Cl.	5,082
Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *)	5,061
Ganjam * (Ganjámu, *Tel.*)	5,037
Siroogooppa (Shiruguppa, *Tel.* Siruguppa*)	5,013
Kadiry (Kadiri,* *Tel.*)	5,004
Samulcottah (Tsámarlakóta, *Tel.* Sámalkót *)	4,962
Cauvaly (Kávali,* *Tel.*)	4,927
Anantapore (Anantapuramu, *Tel.* Anantapur *), M.	4,907
Goodoor (Gúdúru, *Tel.* Gúdúr *)	4,862
Jummalmudoogoo (Jammalamadugu,* *Tel.*)	4,846
Arnee (Árani, *Tam.* Árni *)	4,812
Coonoor * (Kunnúr, *Tam.*), M.	4,778
Mundasa Pautputnam (Mandasá, Pátapatnamu, *Tel.*)	4,671
Tautayyangarpett (Táttayyangárppéttai, *Tam.*)	4,591
Calingapatam * (Kalingapatnamu, *Tel.*)	4,465
Oodipy (Udipi,* *Can.*)	4,449
Nangoonairy (Nángúnéri, *Tam.* Nángunéri *)	4,414
Coringa * (Kórangi, *Tel.*)	4,398
Vijianarayanam (Visayanáráyanam, *Tam.*)	4,387
Royachoty (Rayatsóti, *Tel.* Ráyachóti *)	4,367
Barwah (Báruva,* *Tel.*)	4,298
Condapilly (Kondapalle, *Tel.*)	4,289
Chundragherry (Chandragiri,* *Tel.*)	4,193

Wandiwash * (Vandavási, *Tam.*)	4,130
Nizampatam (Nijámupatnamu, *Tel.*) ...	4,128
Valloor (Vallúru, *Tel.* Vallúr *)	4,070
Pooroosbottapore (Purushóttapuramu, *Tel.* Purushottapur *)	3,962
Yedapaudy (Edappádi, *Tam.*)	3,942
Aska * (Ashiká, *Tel.*)	3,909
Condayapollem (Kondayapálayamu, *Tel.*) ...	3,885
Mylaveram (Mailavaramu, *Tel.*)	3,704
Ranipett (Ránippéttai, *Tam.*), Cl.	3,697
Voilpaud (Váyalpádu, *Tel.* Váyalpád *)	3,695
Narraindevakery (Náráyanadévarakeri, *Tel.*) ...	3,669
Sooradah (Suradá,* *Tel.*)	3,594
Tindivanam,* (*Tam.*), Cl.	3,526
Boyarauny (Boyaráni,* *Tel.*)	3,339
Arconum (Árkkónam, *Tam.* Arkónam*)	3,220
Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam *)	3,210
Sanavaurpettah (Sanavárpéta, *Tel.*)	3,200
Amalaupooram (Amalápuramu, *Tel.* Amalápuram*)	3,165
Buntwaul (Bantvála, *Can.* Bantvál *)	3,090
Harimundalam (Harimandalamu, *Tel.*)	3,089
Canigherry (Kanigiri, * *Tel.*)	2,869
Ottapidauram (Óttappidáram, *Tam.* Otapidáram*)	2,854
Gopalpore (Gópálapuramu, *Tel.* Gopálpur *) ...	2,675
Pulmanair (Palamanéri, *Tam.* Palmanér *) ...	1,931
Poolivendla (Pulivendala, *Tel.* Pulivendla *) ...	1,885

(3) LIST OF ITINERARY DISTANCES IN MILES OF DIFFERENT PLACES WITHIN AND WITHOUT THE PRESIDENCY BY ROAD OR RAIL FROM MADRAS CITY.

Station.	Miles.
Adamancottah, (Athamangóttai, *Tam.*)	184
Addanky (Addanki,* *Tel.*)	206
Adony (Ádaváni, *Tel.* Ádóni *)	308
Agra	1,736
Ahmednugger	679
Allahabad	1,456
Allygurh	1,769
Anantapore (Anantapuramu, *Tel.* Anantapur *).	259
Arconum (Árkkónam, *Tam.* Arkónam *) ...	43
Arcot * (Árkkádu, *Tam.*)	65
Attock	2,402
Avanashy (Avanási, *Tam.* Avanáshi *)	286
Bangalore	214
Baupatla (Bápatla,* *Tel.*)	226
Burdwan	1,947
Bellary * (Ballári, *Tel.*)	319
Benares	1,550
Berhampore * (Brahmapuramu, *Tel.*)	646
Beypore * (Béppúra, *Mal.*)	406
Bezwada (Bedzaváda, *Tel.* Bezváda *)	273
Bombay	794
Cadiry (Kadiri,* *Tel.*)	205
Calcutta	2,013
Caroongooly (Karunguzhi, *Tam.* Karunguli *) ...	84
Caroor (Karúr,* *Tam.*)	296
Cawnpore	1,577
Chetterpore (Chhatrapuramu, *Tel.* Chatrapur *).	660
Chicacole * (Shríkákulamu, *Tel.*)	547
Chidambaram * (Shithambaram, *Tam.*)	151
Chingleput * (Shengalppattu, *Tam.*)	35
Coimbatore * (Kóyamuttúr, *Tam.*)	306
Colaur	164
Combaconam (Kumbagónam, *Tam.* Kumbakónam *)	173
Cuddalore * (Kúdalúr, *Tam.*)	128
Cuddapah * (Kadapa, *Tel.*)	167
Cuttack	762
Delhi	1,847
Dharmapoory (Tarumappuri, *Tam.* Dharmapuri*)	178
Dinapore	1,670
Dindigul * (Tindukkal, *Tam.*)	306
Ellore * (Ellúru, *Tel.*)	312
Erode * (Íródu, *Tam.*)	247
Ganjam * (Ganjámu, *Tel.*)	665
Ghaziabad	1,835
Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam*)...	105
Goodoovancherry (Kúduvañjéri, *Tam.* Gúduváncheri *)	23
Goolburgha	441
Goontacull (Guntakallu, *Tel.* Guntakal *) ...	274
Goontoor (Guntúru, *Tel.* Guntúr *)	253
Gooty * (Gutti, *Tel.*)	264
Gwalior	1,812
Hyderabad	533
Ichapore (Iççápuramu, *Tel.* Ichápur *)	631
Jhelum	28
Jubbulpore	1,229
Kilianore (Kilianúr, *Tam.*)	88
Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *)	157
Lahore	2,170
Laulgoody (Lálukkudi, *Tam.* Lálgudi *) ...	206
Madanapully (Madanapalle,* *Tel.*)	154
Madrantacam (Mathurándagam, *Tam.* Madurántakam *)	50
Madura * (Mathurai, *Tam.*)	345
Masulipatam * (Machilípatnamu, *Tel.*)	279
Mayavaram (Máyavaram,* *Tam.*)	174
McDonald's Choultry * (McDonald Shávadi, *Tam.*)	222
Meerut	1,865
Mysore	305
Nagpore	1,132
Needamungalam (Nídámangalam,* *Tam.*) ...	236
Negapatam * (Nágappattanam, *Tam.*)	266
Nowpada (Naupada, *Tel.* Naupada *)	581
Ongole * (Vangólu, *Tel.*)	184
Oossoor (Hosúru, *Can.* Hosúr *)	188
Palghaut (Pálakkátu, *Mal.* Pálghat *)	343
Pallavaram (Pallávaram,* *Tam.*)	12
Pulmanair (Palamanéri, *Tel.* Palmanér *) ...	122
Panrooty (Pannurutti, *Tam.* Panruti *)	113
Paupanausam (Páppavinásam, *Tam.* Pápanásam *)	181
Peroondoray (Perundurai,* *Tam.*)	259
Peshawar	2,448
Pondicherry * (Puthuççéri, *Tam.*)	102
Poona	675
Poonamallee * (Púvirundamalli, *Tam.*)	13
Poonganore (Punganúru, *Tel.* Punganúr *) ...	140
Porto Novo * (Parangippéttai, *Tam.*)	144
Ryechore (Raitsúru, *Tel.*)	351
Rajahmundry * (Rájamahéndravaramu, *Tel.*) ...	367
Ranipett (Ránipppéttai, *Tam.*)	71
Rawulpindee	2,344
Salem * (Shélam, *Tam.*)	210
Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug *)	233
Secunderabad	390
Shreerangapatnam (Shirírangappattanam, *Tam.*)	296
Shevaroy Hills * (Shérvaráyanmalai, *Tam.*) ...	192
Shiyally (Shiyyázhi, *Tam.* Shiyáli *)	162
Shoolagherry (Shúlagiri, *Tam.*)	174
Sholapore	511
Sholinghur * (Sholangippuram, *Tam.*)	56
Shreepermatore (Shirípperumbúthúr, *Tam.*, Sríperumbudur *)	26
St. Thomas' Mount * (Parangimalai, *Tam.*) ...	9
Sydapett (Shaitháppéttai, *Tam.* Saidápet *) ...	5
Tadpatry (Tádiparti, *Tel.* Tadpatri *)	228
Tanjore * (Tañjávúr, *Tam.*)	196
Tindivanam * (*Tam.*)	76
Tiroomungalam (Tirumangalam,* *Tam.*) ...	355
Tiroor (Tirúra, *Mal.* Tirúr *)	388
Toppoor (Toppúr, *Tam.*)	196
Tripatore (Tiruppattúr, *Tam.* Tirupatúr *) ...	140
Tripatty (Tiruppathi, *Tam.* Tirupati *)	84
Trichinopoly * (Tiruççináppalli, *Tam.*)	218
Trivellore (Tiruvallúr,* *Tam.*)	251
Tiroovalore (Tiruválúr,* *Tam.*)	28
Tuticorin * (Túttukkudi, *Tam.*)	443
Umballa	1,973
Umritsar	2,138
Vaniyambaudy (Vániyambádi,* *Tam.*)	126
Vellore * (Vélúr, *Tam.*)	85
Vencatagherry (Venkatagiri,* *Tel.*)	110
Vicravandy (Vikkiravándi, *Tam.* Vikravándi *)...	93
Villoopooram (Villupuram,* *Tam.*)	100
Vontimittah (Vontimitta, *Tel.* Vontimitta *) ...	152

(4) HOURS AT OTHER CITIES IN THE WORLD CORRESPONDING TO NOON AT MADRAS.

Adelaide ...	3-53 P.M.	Calcutta ...	0-33 P.M.	Greenwich ...	6-39 A.M.	Pekin ...	2-25 P.M.
Amsterdam ...	6-59 A.M.	Capetown ...	7-53 A.M.	Jerusalem ...	9 -0 ,,	St. Petersburg.	8-40 A.M.
Athens ...	8-14 ,,	Constantinople.	8-35 ,,	Madrid ...	6-24 ,,	Rome ...	7-29 ,,
Berlin ...	7-33 ,,	Copenhagen ...	7-29 A.M.	Malta ...	7-37 ,,	Suez ...	8-49 ,,
Berne ...	7- 9 ,,	Dublin ...	6-14 ,,	Melbourne ...	4-19 P.M.	Sydney ...	4-44 P.M.
Bombay ...	11-31 ,,	Edinburgh ...	6-26 ,,	New York ...	1-43 A.M.	Stockholm ...	7-51 A.M.
Brussels ...	6-56 ,,	Florence ...	7-24 ,,	Paris ...	6-48 ,,	Vienna ...	7-45 ,,

APPENDIX No. XII.

DESCRIPTIVE ACCOUNTS OF DISTRICTS, LOCALITIES, &c., IN OR CONNECTED WITH THE PRESIDENCY.

INTRODUCTION.

The following descriptive accounts are all brought down to the year 1884, and in various respects they contain matter which is not elsewhere to be found. The District Manuals however carried out under the orders of Government contain a very large fund of information of a more detailed nature than is here furnished, down to the dates at which they were respectively published. There are District Manuals for the following revenue districts, published in the years indicated:—Arcot (North), 1881; Arcot (South), 1878; Bellary, 1872; Chingleput, 1879; Cuddapah, 1875; Ganjam, 1882; Godavery, 1878; Kistna 1883; Madura, 1869; Neilgherries, 1880; Nellore, 1871; Salem, 1883; Tanjore, 1883; Tinnevelly, 1880; Trichinopoly, 1879; Vizagapatam, 1868. The District Manuals are specially valuable for their historical matter.

ANAMULLAYS.

Description.—The Anamullays (or elephant mountains) lie towards the south of the Coimbatore district, between lat. 10° 13′ 45″ to 10° 31′ 30″ N.; long. 76° 52′ 30″ to 77° 23′ E. They are geographically connected with the Western Ghauts, and separated only by a valley from the Pulneys; while they may be said to be in a sense the northerly extension of the Travancore hills. They are bounded on the west by Malabar and Cochin; south by Travancore; and east by Madura. The main range has a direction from south-east to north-west, having numerous spurs on either side. Going eastwards there is a secondary range running parallel with the main range; and the hills to the eastward again are broken in conformation. From the main range (beginning from the south upwards) the chief streams running west are the Vadamalayaur, the Sholayaur, the Palacadavaur and the Toonacadavoo stream; which under various local names fall into the Cochin rivers. The main and secondary ridges are divided by the Toracadavaur, which under an altered name flows past Anamullay village in the plains. This river is joined below Anamullay by the Palaur, which rises on the eastern slopes of the secondary range. The united streams fall into the Ponnany river, draining part of Malabar. The river of most importance however, since it flows eastwards, is the Amravatty. The main source of this river is in the Travancore portion of the hills, namely the Anjanaud valley; but there are numerous important feeders from the eastern and southern slopes of the Anamullays. To give a rough general description of the country to the westward of the main range, it may be said that after ascending from the plains to a height of some 2,000 feet, a broken plateau is entered covered with deciduous forest. This is the main teak belt. Going southwards over the Anagoondy pass, alternate belts of evergreen and deciduous forest are found, the lowlands about the Palacadavaur river containing a fine specimen of the old teak forest. Southwards from the Palacadavaur river, after ascending the ridge, the whole of the forest may be said to be evergreen. Eastwards of the main ridge, a certain amount of teak is found up to elevations of 4,000 feet, but not beyond. At the southern or upper end of the Toracadavaur valley, a fine series of plateaux commences, part of which are in British and part in Travancore territory. The list begins with Michael's valley. The high ranges here are divided into blocks or mountains, separated by deep wooded and generally precipitous valleys; these detached blocks or plateaux are very marked. The whole of the Anamullay plateau is between 80 and 100 square miles, but this includes a large tract situated in the Travancore territory. The broken nature of these mountains causes the scenery to be far more varied and beautiful than that generally met with either on the Pulneys or Neilgherries; but as may be expected from their propinquity, there is much similarity in many respects in all three ranges. The general trend of the highlands is north-north-east and south-south-west, the highest eleva-

tions being to the north-east and to the south, gradually decreasing in sloping undulating hills towards the west excepting the Anamoody mountain and its plateau, which is situated at the extreme south-south-west end of the range. The chief peaks of the Anamullays are Anamoody, 8,850 feet (the highest in Southern India); Tanakkah, 8,147 feet; Cauttoomullay, 8,400; Comauricull, 8,200; Carrincolam, 8,480. The hills, like the Neilgherries, and the Coimbatore district generally, consist of gneiss and belong to the metamorphic rocks. Veins of felspar and quartz were common, and some of these very large, crossing the foliated gneiss at right angles. The gneiss is generally of a grey colour, but in some places it is reddish. No crystalline limestone, such as is found associated with the gneiss in Coimbatore, has been observed.

2. *Flora.*—The forests may be divided into deciduous and evergreen. The evergreen forests or sholahs are similar to those found on the Neilgherries, and are especially valuable as forests of protection, harbouring as they do the head waters of all the streams and rivers. The deciduous forests extend up to an altitude of about 4,400 feet and contain many kinds of timber trees of which the most valuable are Tectona grandis, teak; Dalbergia latifolia, blackwood; Pterocarpus marsupium, vengay; Lagerstrœmia microcarpa, venteak; Inga xylocarpa, yerool; Terminalia tomentosa, karoomaroothoo. The principal teak forests are situated to the extreme west of the range at an altitude of about 3,000 feet. The trees are felled and squared by Palghaut axemen, left in the forest for one year to season, and then dragged, carted and slipped to the foot of the ghaut. The Bombay dockyard depends on these forests to a great extent for its supply of teak, and large quantities are sent annually to Bombay. The accessible forest has been much overworked, and the trees that remain are chiefly deformed and stunted. There is still virgin forest between the Vengoly peak range and the Cochin country which owes its salvation to its inaccessibility. Jungle fires annually recurring and caused wilfully by the hill people to improve the grass and free the forest of undergrowth have wrought incalculable mischief to the forests, but this mischief will be stopped. Now the hills are under the Forest Act. The lower ranges are feverish from January. There are three coffee-estates on the hills, but they cannot be said to have proved a financial success up to date.

3. *Hill tribes.*—The following hill people are found in the Anamullay hills:—Kadar, Maravar, Pooliyar, Malasar. The Kadar are wanderers living in the lower ranges in the monsoon, but in the hot weather frequenting the higher ranges. They have inhabited the hills from immemorial times. The face is decidedly African, flattish, the nose broad and flat, lips thick, with but little hair. They file their teeth to a point. The women disfigure their ears by inserting rolled strips of bamboo into a hole in the lobe of the ear, the roll being sometimes 3 inches in diameter. They wear bamboo combs in their hair, which is cut as a fringe over the forehead, and are fond of scenting themselves with gum benjamin. The men eat opium and drink. They carry loads in baskets slung to the shoulders from behind. They are good walkers on the hills, but soon tire in the plains. They have little cultivation, but live chiefly on roots and fruits. They eat meat provided it is not that of the cow. The minor produce of the forests, cardamoms, gum, honey, wax, &c., is collected by them and bartered for the other necessaries of life. They are not industrious and seldom labour unless compelled by hunger. They use bows and arrows, and some have guns. Their numbers are decreasing. The Maravar are more recently from the low country. They are said to have accompanied the Pandyan king of Madura when he was driven into the Travancore hills by Trimal Naick. They are copper-coloured and in appearance like low-country ryots. They are good cultivators. The property descends with them not to a man's son, but to his sister's son. The Pooliyar are low-country people. They are good cultivators and own valuable wet lands in the hill villages, but they are not industrious. They are chiefly remarkable for their long hair. The Malasar are low-country people of low caste. They are found in the lower ranges and at the foot of the hills and live by thieving, hiring themselves out as herdsmen, &c. Small-pox has unfortunately been prevalent in the hills of late, and the mortality from it has been considerable. The whole hill population is 1,260, of whom 220 are Kadar, 58 Maravar, 808 Pooliyar, and 174 Malasar.

ANANTAPORE.

Description.—This district lies between 13° 40′ and 14° 40′ N. lat., and 76° 55′ and 78° 5′ E. long. Its area is 5,103 square miles; and its population in 1881, 599,889, being 117 to the square mile. It is bounded on the north by the Bellary district, on the east by the districts of Kurnool and Cuddapah, and on the other two sides by Mysore.

2. *Physical Geography.*—The four northern talooks of Gooty, Tadpatry, Anantapore and Dharmavaram consist generally of a plain broken at occasional intervals by rocky hills. The Mootsoocote jungles near Tadpatry are worthy of notice. There are large tanks at Singanamala (2,610 inhabitants) in the Anantapore talook and at Dharmavaram (5,916 inhabitants). The tank at Bookkapatam (3,680 inhabitants) and Cottacheroo (3,220 inhabitants), Penoocondah talook, is a very large one, formed by connecting a line of low hills of trap rock. The Chitrauvaty river after feeding it, flows north to Dharmavaram and joins the Pennair below Tadpatry. In the three southern talooks of Penoocondah, Hindoopore and Madaksira the scenery becomes more interesting, and the country rises to the Mysore plateau. The southern jungles bordering on Cuddapah are likely to become good forest reserves, and contain bears, cheetahs, samber deer, wild boar, peacocks, and other game. Antelopes are found in many places on the plains throughout the district, while water-fowl and snipe are numerous on the tanks of Hindoopore and Madaksira. The river Pennair rises in Mysore, and enters the south of the district near Parghy (4,023 inhabitants). For about 100 miles it flows north to Ooderpidroog, where it turns to the east. Passing by the towns of Paumidy (5,260 inhabitants) and Tadpatry it flows through Cuddapah and Nellore districts into the Bay of Bengal. The flora are scanty on the plains, but there are many good topes or groves throughout the district. In Madaksira, the garden of the district, trees such as the mango, neem, and tamarind grow well, and there are many irrigated gardens of areca palms, cocoanuts and fruit trees. Grapes and pomegranates of good quality are cultivated at Penoocondah. Tungaid bark (Cassia auriculata) is exported for tanning purposes. The mineral products are few. The working of the diamond mines at Vajracaroor, Gooty talook, is now in abeyance. The old manufacture of earth-salt is prohibited, but saltpetre and soda are extracted from the soil. Corundum pebbles are exported for conversion into emery powder. Building stone and bricks are procurable of good quality.

3. *History.*—Up to 1881 the Anantapore district formed a portion of Bellary and it has little history other than that of Bellary. After the fall of Vijianugger (the modern Humpy) in 1564 the Hindoo Rajahs retired to Penoocondah; where they have left numerous traces of their grandeur by ruined palaces and temples, many of which were converted into Mahomedan buildings in the thirteenth century during the time of Hyder Ally and Tippoo Sahib of Mysore.

4. *Population.*—The population, as given by the census of 1881, is 599,889, of whom 305,452 are males and 294,437 females, being a total decrease of 141,366 since the last decade, during which the district suffered most severely from the famine of 1877. The occupied houses number 119,128, giving an average of 5 inhabitants a house. Of the population 93 per cent. are Hindoos and 6½ per cent. Mahomedans. Classified according to worship, the Hindoos are nearly equally divided between Shiveites and Veishnavites, the small remainder consisting of Lingayets and others. Classified according to castes the Brahmins aggregate 2½ per cent., the Shoodras 82 per cent., and Pariahs 13 per cent. Among the Mahomedans almost all are Soonnees. The Christians number 857, and the number of Europeans and Eurasians is small. The Jains have 129 members. The male population shows 52 per cent. as agriculturists, 14 per cent. as industrial, 2 per cent. as professional, ·8 per cent. as commercial, ·2 in domestic service, and 30 per cent. as "indefinite and unproductive." The language of the district is Teloogoo, but Canarese is spoken in the west near Mysore, while Mahomedans generally understand Hindostany. At present Anantapore (4,907 inhabitants; income Rupees 9,000) is the only municipality. Offices and houses are being erected there for the accommodation of the district staff. It was the head-quarters of Sir Thomas Munro when in charge of the Ceded districts from 1800 to 1807. He was buried in 1827 at Gooty (5,373 inhabitants), whence his remains were subsequently removed to Madras. A chuttram or native rest-house and hospital have been erected at Gooty to his memory. The town is at the foot of a fortified hill, a conspicuous object from the railway. Tadpatry (8,585 inhabitants) has some well-carved temples and is largely connected with the cotton industry. At Penoocondah (5,331 inhabitants) is a fortified hill with a bungalow on the top, sometimes used as a sanitarium. Hindoopore (6,694 inhabitants) has a large weekly market for jaggery or raw sugar and other agricultural produce.

The total number of villages is 900, and most of these have small hamlets attached to them.

5. *Agriculture.*—Of the total area (3,331,182 acres) about one-sixth or 504,330 acres are uncultivable and apportioned for public purposes; and of the remainder 902,019 acres are under assessed cultivation and 363,497 acres under inam tenure generally subject to the payment of a small jody or rent. The area not cultivated is 2,063,625 acres. The crops grown are similar to those of Bellary, 93,145 acres being classed as wet or irrigated by tanks and river-channels. The ryotwarry system prevails throughout the district. The poligars or small zemindars who acted as middlemen were abolished under Sir Thomas Munro's administration on account of their turbulent conduct. Information as to prices of agricultural products, climate and natural calamities such as storms, pestilence and famine, will be found in the notice of Bellary.

6. *Forestry.*—In character the forests of this district resemble those of Bellary and of the southern talooks of Cuddapah which they adjoin. The chief forests lie in the hills of Penoocondah and Hindoopore, where there is a good growth in places and where teak, yepi (Hardwickia), Anogeissus latifolia, and other deciduous trees occur. Some good areas have been selected and proposed as legal reserved forests. Further north is the Mootchoocottah forest on the hills which separate the Tadpatry and Anantapore talooks. This has been for some time under protection, though the keeping out of fire has been found to be difficult. The chief tree in the forest is the Hardwickia binata and its general appearance is that of scattered poles of the tree with a few of other species. There are a few topes and small plantations of babool in this district, but the chief is that near Gooty, where there is a good growth of babool (Acacia Arabica) with Acacia leucophlœa, Albizzia Lebbek, the palmyra palm and other trees, of about 400 acres. The head-quarters of the forest division are at Anantapore and ranges have been formed at Penoocondah, Hindoopore and Mootchoocottah.

7. *Commerce and Trade.*—In the northern portion cotton and indigo take the first place among the agricultural products, and petty weaving and manufactures occupy a large number of people. Vitrified bangles are made at Goottoor (1,672 inhabitants), Penoocondah talook, and near Gooty; and coarse paper from aloe fibre at Namadala (1,532 inhabitants), Dharmavaram talook. Chintz-stamping is carried on at Pamidy, some of the mythological palampores or quilts being of great interest. Weaving of valuable silks is carried on to a small extent at Dharmavaram. Castor-oil, gingelly (Sesamum Indicum) and other seeds are cultivated for the production of oils. The Madras railway (north-west line) runs through the north-east boundary of the district for about 60 miles past Tadpatry, Gooty and Goontacull, the junction for Bellary. A survey has been ordered for an extension of the new Bellary-Kistna railway narrow gauge, from Goontacull southwards for about 100 miles past the principal towns to Hindoopore. The trunk road, route No. 15, from Bangalore to Secunderabad runs through the district for 105 miles, and there are 740 miles of minor roads. There are twelve travellers' bungalows and a few chuttrams.

8. *General Administration.*—Up to 1881 Anantapore formed a portion of the Bellary district, and was then separated for convenience of administration. The Collector and District Magistrate has now under him a Covenanted Head Assistant Collector, an Assistant Collector or in his absence a Temporary Deputy Collector, and two Deputy Collectors, one of whom is in charge of the treasury. Each talook is under a Tahsildar and Sub-Magistrate, with generally a Deputy Tahsildar, and assisted by Revenue Inspectors to supervise the work of the village officers, reddy and curnum, the headman and accountant respectively. The larger irrigation works are in charge of the Executive Engineer, Bellary, while those with an "ayacut" or cultivated area of less than 200 acres are in charge of the Revenue department. The land revenue in 1883-84 amounted to Rupees 9,09,084. Other sources of revenue are abkarry or excise on arrack and toddy, Rupees 1,74,867; stamps Rupees 57,045, and license tax on traders, Rupees 12,529. The total cost for administration amounts to Rupees 2,71,140. The local funds for the upkeep of roads, dispensaries, and schools amount to less than a lakh of rupees, and are scanty for the wants of the district. Civil justice is administered by the Bellary District Judge, assisted by a Sub-Judge at Tadpatry and District Moonsifs at Gooty and Penoocondah. The village headman is also generally empowered as village moonsif to decide trifling criminal and civil cases, and has one or two taliaries or village police under him. The regular police force of over 700 men is controlled by a Superintendent and Inspectors, and is in the proportion of one policeman to every 857 of the population. There is a Government printing press at head-quarters. Gratuitous medical treatment is given at the dispensaries at Gooty, Anantapore, Tadpatry, Ooravacondah (6,209 inhabitants), Calyaundroog (2,715 inhabitants) and Penoocondah, and a few other hospitals will shortly be opened. Vaccination is performed free of charge. The London Missionary Society work from Gooty, where a Roman Catholic Mission is also established. There are a few elementary English schools, and vernacular elementary or pial schools exist in nearly every village. The people are comparatively very uneducated, but are quiet and well-disposed.

ARCOT (NORTH).

Description.—This district lies between 12° 21′ and 14° 10′ 45″ N. lat., and between 78° 14′ 45″ and 80° 13′ E. long.; area 7,256 square miles; population in 1881, 1,817,814. Mysore bounds it on the west, and on the other three sides lie British districts—Cuddapah and Nellore on the north, South Arcot and Salem on the south, and Chingleput on the east.

2. *Physical Geography.*—The northern and western portions of the district are hilly and picturesque; the southern and eastern, as a rule, are flat and uninteresting. The range of the Eastern Ghauts traverse it from south-west to north-east, with spurs thrown out on their southern side, and the Nagary Hills run across the northern corner. In the extreme south-east the Jawaudy range adjoins the district, its peaks attaining sometimes a height of 3,000 feet, covered in part with dense and valuable forest. The Eastern Ghauts and the Jawaudies are of gneissic or metamorphic formation, made up to a great extent of bare, rounded rock-masses, with smooth, loose boulders scattered about. In the north-eastern formation, conglomerates and sandstones prevail; and the precipitous cliffs, rising straight from the plains, present the appearance of volcanic upheaval. Iron and copper are found in some abundance, and as gold has been obtained in Mysore within a few miles of the district frontier, it is probable that it exists in North Arcot also. Coal occurs nowhere, but lime and good building stone abound. The chief river is the Palaur. It enters the district in the south-west, and, after a preliminary bend to the north on meeting the rise of the Jawaudy Hills, assumes an easterly direction to the sea. It receives on its way two important affluents, the Cheyaur and the Poyney. For almost the whole year the river-courses are dry, the water sinking into the deep sand of the river beds. Channels, however, are cut into the sand, and the underflow of water thus procured is carried off for irrigation. This supply never fails. The fisheries, although fish forms a chief item in the food-supply, are financially unimportant. The fauna of the district include the bison, tiger, leopard, bear, hyæna, several species of deer, and boar. For the destruction of animals dangerous to human life, rewards to the extent of Rupees 2,725 were given in 1883-84, and the average number of deaths from wild beasts and snakes during 1882-83 and 1883-84 was 360.

3. *History.*—North Arcot lies on the border line which divides not only the Teloogoo from the Tamul speaking races, but also the Deccan country from the south of the peninsula. The Western Ghauts, the Neilgherry Hills, the Mysore Plateau, the Tripatty Hills, and the mountaneous and forest-covered tract to the north of it, with the hills of the Calastry Zemindarry, form a distinct barrier across the whole South-Indian Peninsula; which was in early days far more marked than it is now. Whereas in the northern districts it is necessary to look for early history to the Andhras, the Rajahs of Vengy, the Chalookyas, and the Rajahs of Orissa; this district is concerned with the dynasties of the old Congoo and Chola countries, and with the Pallava rulers of Conjeeveram. In the second century of the Christian era the country was, according to Ptolemy, inhabited by nomads. These were doubtless the Vedar, or their conquerors the Coorumbar. The latter established a dynasty called the Pallava. In the fifth century the Pallavas of Conjeeveram appeared as a ruling power over the whole of this part of the country. They were somewhat later attacked and defeated by the Cadambas of Vanavausee as well as by the Rajahs of Congoodesa. The latter family claim to have conquered and exacted tribute from the Pallavas, whom they style the "Dravidas of Canchy," in the sixth, eighth, and the middle of the ninth century. But the Pallavas of the end of the fifth or beginning of the sixth century were strong enough to defeat the early Chalookyan chief, Jayasimha, if a story is to be believed which is told in the later Chalookyan grants. The rajahs of Canchy were

repeatedly attacked by the western Chalookyas. It appears that the Chola Rajahs in the year A.D. 894 conquered the ruler of Congoodesa, but it is not known what then became of the Pallavas. Native tradition and chronicles are positive as to the Coorumbar having been a savage but powerful race till their complete subversion by Adonday, son of Coolottoonga Chola, and it is known that the latter ruler reigned in the eleventh century. A list is handed down of the "Kottams" and "Nauds" into which the Pallava country was found divided by Adonday. Nine of the twenty-four larger divisions were situated in the North Arcot district. The Hoysala Ballaula sovereign Bittideva claims to have conquered Conjeeveram and resided there. This was at the beginning of the twelfth century. But it does not seem that the country was really then taken from the Cholas. Both the latter power and the Ballaulas were overthrown by the Mahomedans in A.D. 1310. Then ensues a period of which little or nothing is known till the conquest of Conjeeveram by the Orissan king Poorooshottamadeva, which took place about the middle of the fifteenth century. The country had fallen under the Vijianugger kings in the early period of their supremacy, but their authority was not firmly established; for not only was Conjeeveram sacked by the king of Orissa about the year A.D. 1450, but Mahomed Shah Bahmanee II captured it in A.D. 1477. A few years later again the powerful Vijianugger king Narsimha took possession of the country, and until the subversion of Vijianugger in A.D. 1564 Conjeeveram was a province of that kingdom. After their defeat at Talicote in what is now the Bombay Presidency the Vijianugger chiefs retired to Chundragherry in what is now the North Arcot district of the Madras Presidency, and resided there till the family became extinct in the last century. The invitation sent by the Rajah of Chundragherry to Mr. Day in 1640 is the first important fact in the history of this Presidency, and for the story reference can be made to Vol. I. Indeed the whole of the history of this part of the country belongs thenceforward to the general history of the British in India, and will not here be detailed. Clive's defence of Arcot in 1751 formed the turning-point in British Indian history. At Wandiwash in 1760, Colonel Eyre Coote defeated Lally, and established the English supremacy. The Nawab of the Carnatic chose Arcot as his capital at the beginning of the eighteenth century, and the Carnatic family hold considerable property there to the present day. In 1792, after the termination of the Mysore war, the portion of the present district lying above the ghauts was ceded to the British. It was appended to the Baramahaul tract and administered conjointly with the western estates of Vencatagherry, Sydapore, Calastry and Carvetnugger. In 1801, the Carnatic was ceded to the British by the Nawab; and the portion of this territory lying north of the Palaur river was, together with the above estates, formed into the district then called the Northern Division of Arcot, and placed under the Krishnagherry Collector. In 1808, the talooks south of the Palaur were added to the district, Krishnagherry removed from it, and the estates of Vencatagherry and Sydapore transferred to Nellore. Since that year the only alteration in the area of the district has been the addition of the Poonganore estate. When the Carnatic was first acquired, there were in all twelve polliems or tributary estates—Naragoonty, Culloor, Carcambaudy, Krishnapooram, Toomba, Bungaur, Poolicherla, Poloor, Mogaral, Paukala, Yedragoonta, and Goodiputty. In 1803, all of these, with the exception of the last, rebelled, and a military force had to be employed to reduce them to submission. Four polliems—Poloor, Mogaral, Paukala, and Yedragoonta—were resumed by Government, and the rest, Goodiputty excepted, were for many years held under attachment. Vellore and Chundragherry have interesting historical associations, dating from the negotiations abovenamed with the Beejapore king for permission to erect a factory at "Madrasputnam" within his territories.

4. *Archæology.*—The district possesses many objects of archæological interest belonging to all periods. Remains of pre-historic date, dolmens, stone circles, &c., appear to be confined to the Goodiyattam and Chittore Talooks and the tract above the ghauts to the west of the district. They are of a distinctive character. It is stated that the Coorumbar of the Pulmanair plateau still erect dolmens on a small scale. These people are identical with the Coorumbar of the plains. Stone sculptures of warriors (Veeraculls), of snakes, and of village goddesses abound throughout the district. For many centuries Jeinism largely prevailed as the popular religion and there are several ancient rock-cut memorials of that faith in the district. The predominant Brahmanical religion, supported by the influence of the teachings of Shunkaracharya (650–700 A.D.), was that of Shiva till the time of Ramanoojacharya, who, in the eleventh century, converted a large proportion of the inhabitants to the Veishnava creed. The most noteworthy place of archæological interest in the district is Upper Tripatty, for which see Vol. III. Trittany also is worthy of note. At Maumandore in the Arcot talook there are Jeina rock-cut caves. Tiroomala in the Poloor talook was a Jeina centre. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—A census of the district has been taken quinquennially since 1850; but the first trustworthy results were obtained in 1871. The enumeration of 1881 disclosed a total of 310,205 houses (30,877 being returned as uninhabited) and a total population of 1,817,814 souls (or 6·5 inmates per house), 907,354 being males and 910,460 females. Classified according to religion, 1,717,595 or 94 per cent. are Hindoos; 82,438 or 4·5 per cent. Mahomedans; Christians, 10,018. The Hindoos classified according to worship show 52 per cent. Veishnavites and 47 per cent. Shiveites. The chief agricultural castes, making more than half the population, are the Vellalar, Caupoos, Reddies, Cammas, Vanniar or Pullies, Velamas, Balijes, Kavarays, Moottiradzooloo, Yekaulies; the chief pastoral tribes, the Gollas and Yidayar. Artificers in metals, wood, and stone belong mostly to the Kamsala caste. The Mahomedans, mainly of the Soonnee sect, are most numerous about Arcot town, Vellore, and Goodiyattam, and engage indifferently in trade and agriculture, a large number being also employed in subordinate Government posts. The Lubbays, a class of quasi-Mahomedans, are cultivators and traders. The Jains and Booddhists, numbering 7,763, are most numerous in the southern talooks; as a rule, they hold land and are well off. The Maler or pariahs amount to about 17 per cent. of the total population, and are all agricultural labourers of the poorest class. Wandering tribes are numerous, the chief being the Brinjarries, Lumbaudies, Soogalies, Battoos, and Dommers. They travel from place to place, professing to subsist on the produce of the herds which they drive about, but eking out a livelihood by theft. The forests and hills are inhabited by aboriginal tribes—Iroolar, Yerkalar, Yanaudies, and Malayalies. These collect the jungle produce—honey, bees' wax, barks, roots, soap-nuts, &c.—for barter with the people of the plains. They are identified in origin with the Tamul cultivating castes of the plains, but the unhealthy nature of the hills they inhabit has greatly deteriorated the race. The Christians are chiefly Roman Catholics, although the American, Danish, Lutheran, and Scotch Church missions have stations in the district. Some agricultural villages established by the American mission appear to be thriving. Towns with a population over 2,000 number 82, the chief being Vellore, with 37,491 inhabitants; Wallajahpett, 10,387; Arcot, 10,718; Goodiyattam, 10,641; and Tripatty, 13,232. Sixteen towns have a population between 3,000 and 5,000, and seven between 5,000 and 10,000. The total population of these 82 towns amounts to about 328,518, or about one-sixth of the inhabitants of the district. The population is therefore mainly rural. The ordinary agriculturist is strongly attached to his native village, and rarely leaves it except to attend some religious festival. The railway has worked very considerable changes, and, by raising the value of agricultural produce, has materially improved the condition of the cultivating class along the line. In the towns, stone houses are not uncommon; but all the villagers, and the vast majority of the urban population, live in mud buildings. The household furniture of the ordinary cultivator, herdsman, artisan, and small trader classes, consists merely of a bed of wooden planks (visoopalagay), a bench, and one or two boxes.

6. *Agriculture.*—The land under cultivation is reported at 578,731 acres (dry 377,715 and wet 201,016), or only 13 per cent. of the district area. Most of the individual holdings are very small, paying less than Rupees 25 per annum. A cultivator paying more than that may be called a moderately large holder, while those paying more than Rupees 100 per annum are few in number and wealthy. The average rates of assessment are Rupee 1 Annas 8 per acre of "dry" and Rupees 3 per acre of "wet" land; the average outturn per season, 900 and 1,200 lb. of grain respectively, valued in ordinary years at Rupees 22 Annas 8 to Rupees 30. Leaving out of calculation the initial outlay in cattle, the profits derivable from a holding of 5 acres average from Rupees 8 to Rupees 10 per mensem. The peasant's implements—plough, leveller, water-bucket, and smaller articles—cost in all about Rupees 12 Annas 8; and manure, which is generally applied at the rate of 14 loads per acre of "wet," and 20 loads per acre of "dry" land, varies in price from Anna 1 Pies 4 to Annas 4 per load. One pair of bullocks suffices for the cultivation of 3 acres, and an

ordinary yoke of cattle costs about Rupees 30; buffaloes are somewhat cheaper. The chief grain crops of the district are paddy, raggy, cholam—the three staples of food with the bulk of the population—cumboo, varagoo, karamany, millet, samay, sajja, jonna, gram, gingelly, oolandoo, motchakottay and doll, mostly sown in June, July, and August and reaped about four months later: cholam is sown in April, jonna in January, and gram in September. Hemp, cotton, sugar-cane, betel, indigo, onions, tobacco, chillies, plantains, and turmeric are all largely cultivated. No regular rotation of crops appears to be observed. From raggy the people make a porridge (sankaty), which constitutes the ordinary food of the masses. Rice, though sometimes mixed as a luxury with the cheaper grains, is eaten as a regular meal only by the wealthy. The wholesale prices of food-grains in 1883 were as follows:—Paddy, first sort, Rupees 160 per garce of 9,257 lb., or 1 rupee 15 annas per cwt.; second sort, 1 rupee 12 annas per cwt.; cumboo, 2 rupees per cwt.; gram, 2 rupees 6 annas per cwt.; raggy, 1 rupee 11 annas per cwt.; cholam 2 rupees 2 annas per cwt.; varagoo, 1 rupee 1 anna per cwt. Live-stock varies in value in different parts of the district, but on the average a pony costs from Rupees 10 to Rupees 15; a donkey, from Rupees 8 to Rupees 10; a sheep, from Rupees 2 to Rupees 4; a goat, from Rupee 1 Annas 8 to Rupees 3; a pig, from Rupees 3 to Rupees 10; fowls, Annas 4 to Annas 6 Pies 8 each; and ducks, Annas 6 to Annas 14 Pies 8. Male labourers earn from Annas 2 to Annas 2 Pies 8 per diem, and females about half as much. The wages of a working goldsmith or blacksmith are Annas 6 a day; of a carpenter or bricklayer, Annas 6 to Annas 8. The rate of interest for money lent on personal security varies from 12 to 36 per cent. per annum; on the security of personal goods it averages 12 per cent., and with a lien upon crops, 18 per cent. From 6 to 8 per cent. is considered a fair return for money invested in land.

7. *Forestry.*—There are about 1,800 square miles of forest land in the district, 700 belonging to various zemindars. The commonest tree is the toorinjy (Albizzia amara), the most valuable is the red sanders (Pterocarpus santalinus). There are also many other useful and valuable trees as namay (Canocarpus latifolia), blackwood (Dalbergia latifolia), achah (Hardwickia binata), Bassia longifolia, Albizzia, Terminalia tomentosa, Malli, several Acacias, various bamboos, some sandalwood and teak—the last-named in no great quantities. There are various minor products, as honey, wax, lac, barks, and seeds, useful for dyeing and tanning purposes, various fibres, medicinal plants, &c. There are more than 1,500 acres of plantations, principally casuarina, in this district. All of these have been notified as reserved forests. In addition to this over 350 square miles of forest land have been reserved. Progress had also been made with fuel and fodder reserves. About 200 miles of demarcation has been completed and some surveying also. A very large area has also been brought under fire-protection. Forest work has, therefore, made considerable progress in this district, and the revenue is large and likely to continue so. This division is of great importance on account of the several railway lines running through it. The supply of railway fuel will always be a most important point to attend to. The head-quarters of the division are at Vellore, and it is under the charge of a First-class Assistant Conservator of Forests. There are three ranges, each under a ranger, with head-quarters at Vellore, Pulmanair and Chundragherry. There are also seven sub-ranges, each under a forester, with head-quarters at Chittore, Goodiyattam, Veppancooppam, Tenkanbaudy, Poloor, Wallajahpett and Wandiwash. The forest revenue during the year 1883-84 was Rupees 82,546.

8. *Commerce and Trade.*—The trade of the district consists of the export of food-grains and molasses, the import of cloth, and a transit trade in cotton. The exports are in excess of the imports. Weaving forms the chief industry, but the carpets of Wallajahpett, the reed mats of Wandiwash, the brass-work and wood-carving of Tripatty, the hardware of Poonganore, and the glass beads of Calastry are noteworthy specialities of the district. The manufacturers generally work in their own premises on their own account, and their condition is somewhat better on the average than that of the agriculturists. There are no important district fairs, but nearly every town has its weekly market for the exchange of local products. Accumulations of money are for the most part invested in ornaments of gold or silver, and very rarely indeed in the improvement of land. The Madras railway runs for 155 miles through the district, the local returns for 1875 showing a passenger traffic of 650,829 persons, and in goods 105,245 tons. There are altogether 1,520 miles of road maintained at an annual cost of Rupees 1,81,049. Three good passes, the Moogly from Chittore, the Synigoonta from Goodiyattam, and the Naickenairy repaired in 1883 at a cost of Rupees 5,400 from Sautghur, lead up from the plains to the Mysore plateau. The Anna Daunum (rice-giving) choultry at Sholinghur, where large numbers of pilgrims are regularly fed, is the only religious institution individually remarkable. Similar charities on a smaller scale are numerous. The chief religious gatherings are those held annually at Tripatty, largely attended by visitors from Northern India and Mahrattas. An important annual assemblage also takes place at Calastry.

9. *Famine, Flood, &c.*—Disastrous floods are almost unknown. On May 2, 1872, a cyclone visited the district, and caused, after a fall of 13·80 inches of rain, an overflow of the tanks above the town of Vellore. Several hundred lives were lost in the inundation which resulted, and one suburb was entirely swept away. Among recent famines the most notable, until the disastrous year of 1876-77, was that of 1866. Owing to continuous drought the crops failed, and relief works were kept open by Government till the close of 1868. During the famine of 1877, relief measures on a still larger scale were resorted to; and the utmost efforts of Government were required to avert the depopulation of the country. The railway which traverses the district protects it to some extent; but North Arcot enjoys no facilities for the construction of canals, or other irrigation works, and those already in existence altogether depend upon the local rainfall.

10. *Medical.*—Malarious fever may be considered endemic in many parts of the district. It increases in severity immediately after the rainy season. Leprosy is common, and small-pox so prevalent annually from February to May, that a very large percentage of the population bear the marks of attack. In every year from 1869 to 1873 inclusive, cholera prevailed in an epidemic form; in 1876 there was another outbreak. Dengue was almost universal from September 1872 to January 1873. Cattle-disease, the form known as "foot-and-mouth disease," has been frequently epidemic. The mortuary returns for the district during the years 1879–83 inclusive give an average mortality of 30,096, or 16 per thousand of the population. The average number of births during the same period was 49,208, being males 25,127 and females 24,081. The mean monthly temperature, calculating on the returns for 1868-69, ranges from 81° to 95° F.; the maximum recorded being 104° for May, the minimum 74° for January. The annual rainfall during the last five years averages 38·52 inches, ranging from 30·74 in Poonganore to 46·77 in Maderpauk.

11. *General Administration.*—The district comprises 9 talooks—Chundragherry, Chittore, Pulmanair, Goodiyattam, Wallajahpett, Arcot, Vellore, Poloor, and Wandiwash; and 13 estates—Calastry, Carvetnugger, Poonganore, and Cungoondy (zemindarries), Arnee (jagheer), Naragoonty, Goodiputty, Bungaur, Toomba, Poolicherla, Culloor, Carcambaudy, and Krishnapooram (polliems)—the whole aggregating 4,643,840 acres. Of this area, 208,268 acres are under cultivation, 974,956 cultivable, and 3,385,736, or about three-fourths of the whole, irreclaimable waste. The total district revenue amounted in 1883-84 to Rupees 30,05,792, derived as follows:—Land revenue, Rupees 19,82,626; rent of permanently-settled estates, Rupees 4,43,618; abkarry, Rupees 3,60,947; stamps, Rupees 1,89,991; licenses-tax, Rupees 28,610. The total expenditure amounted to Rupees 2,00,329, distributed under the following heads:—Land-revenue collection, Rupees 1,95,408; abkarry, Rupees 168; stamps, Rupees 4,576; licenses-tax Rupees 177. The zemindarry estates upon the rent roll of the district aggregated a revenue of Rupees 4,82,134, Calastry and Carvetnugger together returning Rupees 3,52,725. A survey and classification of the district was made in 1805 for revenue purposes, and the accounts then prepared—known as the "pymaish"—was the basis of all subsequent assessments. In 1808, a three-years' lease system was introduced, but, the experiment proving unsuccessful, the old plan of settling with the cultivators direct was reverted to in 1821. But the land had been over-assessed, and in 1857 reduced rates were promulgated. The new assessment, known as the "haul teerwa," diminished the rates by 30 to 40 per cent. on "wet," and from 20 to 30 on "dry" lands. In 1864, further concessions with regard to waste lands were allowed. The scientific settlement of the district by the Settlement department is now in progress and will shortly be completed. In Government talooks the cultivator possesses a permanent right of occupation so long as he discharges the revenue; in the zemindarry estates he is a tenant-at-will. Many of the larger landholders, and all the Brahmin proprietors, sublet their holdings upon temporary leases, sometimes at money rents, more often for a share (usually about two-fifths) of the produce. There are at present 35 magisterial courts

and 12 civil and revenue courts. Exclusive of village watchmen, the police number 1,339 officers and men, in the proportion of 1 constable to every 5 square miles and every 1,390 of the inhabitants. Their cost of maintenance in 1883 was Rupees 1,50,141, or about Anna 1 Pies 4 per head of the population. Arrests during the year numbered 16,319, resulting in 4,951 convictions. The daily average of prisoners in jail between the years 1860–70 was 1,031, the annual cost per head being Rupees 73 Annas 8; the earnings of the prisoners by jail labour were considerable. For the purposes of public education the district was divided, in 1872, into two circles, the Chittore and Vellore circles. These contain together 634 schools under official supervision, with 15,565 scholars. The first Government schools were opened in 1826, but it was not until 1856 that the zillah schools, giving education of a higher standard, were opened. In 1868 the result-grant system was extended to all the lower-class schools, and in 1872 the administration of public instruction was made over to the Local Fund Boards, established in that year. The post office in 1870-71 carried 1,268,472 letters, 36,309 newspapers, 3,415 parcels, and 10,292 books.

ARCOT (SOUTH).

Description.—This lies between 11° 10′ 30″ and 12° 38′ 30″ N. lat., and between 78° 33′ 30″ and 80° 3′ 15″ E. long.; its area is 4,873 square miles; its population in 1881, 1,814,738 souls. It is bounded on the north by the districts of Chingleput and North Arcot, on the east by the Bay of Bengal, on the south by the districts of Trichinopoly and Tanjore, and on the west by that of Salem.

2. *Physical Geography.*—Although traversed along its western frontier by the Kalroyen range, averaging 3,500 feet in height, and on its north-western boundary having the Jawaudy group, the district of South Arcot itself contains no important mountain chain. From the ranges above mentioned, small rocky spurs, covered with stunted jungle, run down into the north and western portions, but for the rest the district presents a flat surface. On the sea-coast a few sand ridges break this flatness, and near Pondicherry and Cuddalore high lands of the laterite formation interrupt the general level; but the only elevation sufficiently important to form a feature of the district landscape is the Trinomallee Hill, an isolated mass, with a fine peak and long sloping sides covered with jungle, rising to a height of 2,669 feet. Three rivers are navigable throughout the year, the Coleroon, Vellaur, and Paravanaur, but only for short distances of their length. The Coleroon, after a course in the district of 36 miles along the south-eastern frontier, debouches into the bay about 3 miles south of Porto Novo. The Vellaur flows through the district for 82 miles, receiving on its way the waters of the Manimooctahnuddy, and enters the sea at Porto Novo. Both rivers are affected by the tide for a distance of about 6 miles. Other streams of importance are the Guddilam (or Garoodanuddy), rising in the Yegal tank, and, after a course of 59 miles, emptying itself into the sea about a mile north of Cuddalore; the Ponniaur, rising in the Mysore plateau, and, after a course of 75 miles, running into the bay 3 miles north of Cuddalore; and the Jinjee, which rises in the Naranamungalam tank, and after receiving the waters of the Tondayaur and Paumbayaur, flows into the sea by two mouths near Ariancooppam and Chinna Veeramputnam. The forest reserves of the district aggregate 199,478 acres, and there are besides considerable tracts of unreserved jungle lands, to which vast herds of cattle are annually driven to graze, chiefly from Tanjore. The fauna of the district includes among the mammals the elephant, tiger, bear, cheetah, samber and other deer, hyæna, wild dog, boar, &c. During the years 1877–83, rewards to the amount of Rupees 2,867 were distributed for the destruction of animals dangerous to human life: the average annual mortality from snakes and wild beasts during those years was 190. Among the birds may be mentioned the peacock, florican, many other species of game birds, and a great variety of waterfowl. The principal saltwater fish are the pomfret, sole, seer, whiting, robaul, and valay (a silurus); in the backwaters are found the mullet and eel. The rivers and tanks yield the murral, valay, sherkanday, and other carps. Oysters are obtained from the backwater.

3. *History.*—The early history of this district is probably the same as that of the whole of the Chola country. Of this little is as yet known, though a critical study of the numerous inscriptions which abound in the country will throw light on the subject. South Arcot was under the Chola sovereigns from the earliest period of their supremacy, though it is possible that portions of territory to the north fell into the hands of the Pallavas of Conjeeveram. After the thirteenth century South Arcot followed the fortunes of Tanjore. Towards the close of the fourteenth century there are found inscriptions in South Arcot of four chiefs calling themselves Oodaiyar. Their names are Bookkana and his son Campana, Arayanna and his son Veerappanna. The latter seems to have been conquered by the Vijianugger king Harihar, of whom there is an inscription in A.D. 1382. The Vijianugger Rayas held the country till a late dâte, though their power diminished after the blow sustained by them at the hands of the Mussalmans in A.D. 1565. The district passed eventually into the hands of the latter power, and from them to the English. The English connection with the district dates from 1674, when the Khan of Jinjee invited the President of Fort St. George to make a settlement in his country. Negotiations were opened, but no definite action was taken until 1682, when a trading station was formed at Cuddalore. This proved a failure, but a few months later a second settlement was made at Conimere about 10 miles north of Pondicherry. In 1683, the Cuddalore station was reoccupied, and a branch settlement opened at Porto Novo, the deed of grant for all three being received in the following year from Harjee Rajah, Governor of Jinjee. Four years later, the company purchased from the Mahrattas the site of Fort St. David (on the coast close to Cuddalore) with the neighbouring villages, and abandoned the settlement of Conimere. The little territory was augmented in 1750 by a grant from Nawab Mahomed Ally of two villages forming the Jagheer of Chinnamanaick. In the wars of the Carnatic, South Arcot, more especially Cuddalore, played a conspicuous part. In 1758, Fort St. David and Cuddalore were captured by the French, and the fort was levelled to the ground; but two years later, Sir Eyre Coote, advancing on Pondicherry after the battle of Wandiwash, reoccupied Cuddalore, the French evacuating Fort St. David on his approach. In 1782, the French and Tippoo Sultan regained possession of the town, and held it for three years, when it was finally restored, Pondicherry (then in British hands) being at the same time surrendered to the French. On the capture of Pondicherry, in 1793, the French districts were placed under the Resident of Cuddalore, but three years later were incorporated with that tract into a revenue collectorate. In 1801, the "soobah" of Arcot passed into the Company's possession, with the rest of the Carnatic, and all that portion lying between the Palaur, and Vellaur rivers was erected into a district named the Southern Division of Arcot. Since that date numerous changes of area have occurred, the most important being the restoration of Pondicherry to France in 1816; the addition, in 1805, of the Munnargoody and Chidambaram tracts; the transfer of three of the northern talooks to the Chittore and Chingleput districts in 1808; and of Chetput to North Arcot in 1859. The first court of justice established in the district was that of the Choultry Justices in 1691, sitting alternately at Cuddalore and Fort St. David. More than a century elapsed before a more elaborate system was required. In 1802, a zillah court, with its head-quarters at Vriddhachellam, was established, and courts of native commissioners were erected for the trial of small causes. Sub-judges' courts were opened in 1816 at Cuddalore, Villoopooram, Jinjee, and Shreemooshnam, but four years later, the judicial administration of the district was transferred to the courts of Chingleput. In 1843, local courts of the first class were again established; the Civil and Sessions Court at Cuddalore, then erected, being the present District and Sessions Court. Between the years 1843 and 1876 numerous subcourts have been opened, the total number now standing at 37, with 11 others for the trial of rent and revenue cases only.

4. *Archæology.*—The hill-people of the Kalroyen Hills are an interesting race, as well as the Malayalies of the Sekkady Jagheer. The former are probably the representatives of the old Coorumbar. Their country is divided, as the Coorumba country was, into nauds, and they bury their dead. The fire-lingam at Trinomallee and the air-lingam at Chidambaram, are remarkable antiquities. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The first census was taken in 1822, and there have been nine subsequent attempts at enumeration. The last census was taken in 1881. According to this, the number of houses was 266,729, and the total population is 1,814,738 souls,—males, 905,771, and females, 908,967; number of inmates per house, 6·80. Classified according

to religion, there are—Hindoos, 1,721,614, or 94·8 per cent. of the whole; Mahomedans, 48,289, or 2·6 per cent.; Christians, 39,571; Jains and Booddhists, 5,184; "others," 80. No particulars of sub-division according to worship among the Hindoos are given in the statements of 1881. Classified according to occupation (adult males only), 477,478, or 52·7 per cent. of the total, are agricultural; 69,418, or 7·7 per cent., industrial; 11,031, or 1·2, commercial; 15,530, or 1·71, professional; 1,637 or ·2, domestic; and 330,677, or 36·5 per cent., "non-productive." Classified according to castes, the vellalars (cultivators) represent 13·5 of the total population; the vanniars (land-holding cultivators), 32·6; the pariahs (labourers and menials), 23·5 per cent. The Chetties (traders), who number 32,714, are the wealthiest caste; the Brahmins, 34,555, are landholders, and occupy the majority of official posts. The Koravar are a thieving tribe, wandering about with herds of swine, on which and by basket-weaving they profess to subsist. In the hilly tracts are found the Malayalies, Iroolar, and Villiyar; the first supporting themselves by cultivating forest patches, the second by the sale of jungle produce (honey, wax, gall-nuts, and bark), and the third by the chase. The Christians, nearly all pariahs, are divided between Roman Catholics, 35,605 and Protestants—converted by the Danish, Leipzig, S.P.G., and American missions—3,892 with 74 "others." Three villages established by the American mission appear to be thriving. The first Roman Catholic mission was established in 1640; in 1716 the Danish mission followed, but a century elapsed before any of the others made settlements. Among the Mahomedans of Tiroovennanallore is a small colony returning themselves as Wahaubies. Ninety-six towns have a population over 2,000,—the chief being Cuddalore, with 43,545 inhabitants; Panrooty, 20,172; Chidambaram, 19,837; Trinomallee 9,592; Villoopooram, 8,241; Porto Novo, 7,823; Vriddhachellam, 7,347; Valavanoor, 7,231; and Tindivanam, 3,526. The population is mainly rural, but a tendency to gather into towns and seats of industry is said to be becoming apparent. During the last twenty years the material condition of the people has improved. But the hut of the ordinary peasant is still of mud, without windows; its furniture some pieces of matting to sleep on, two or three brass dishes, and a few earthen pots for cooking. His clothing is of two pieces; one for the head, the other for the waist. Though the expenses of a family of five persons do not exceed Rupees 4 Annas 8 a month, he cannot, as a rule, support his household without borrowing. Waste land being abundant in the Trinomallee talook, a considerable immigration goes on, the immigrants being chiefly Reddies, Christians, and pariahs. The same classes emigrate, to the average number of 1,459 annually, to the West Indies, Mauritius and Bourbon, under a system of supervision and protection carried out by the Government.

6. *Agriculture.*—Of the total area of 3,149,321 acres, 1,252,210 are under cultivation. Of the acreage under cultivation, rice occupies 354,878 acres, cumboo (Eleusine stricta) 280,242, varagoo (Paspalum frumentaceum), 207,892, raggy (Eleusine coracana) 144,505, indigo 57,203, oil-seeds 113,684, cotton 9,084, cholam (Sorghum vulgare) 50,041, pulses 34,749, shamay (millet) 1,256, tobacco 2,000, plantains 1,120, sugar-cane 5,064, and fruit orchards 20,113 acres. Forty varieties of rice, shumbah and car being the chief, are cultivated. The ground is always highly irrigated for this crop. Eight varieties of cumboo, the chief "dry" crop of the district, and as many more of cholam, are grown. Indigo is sown in January and cut first in April; cotton is sown in August and gathered in April. The prevailing rates of assessment range from Rupees 8 Annas 8 to Rupee 1 Annas 2 per acre of "wet," and from Rupees 5 Annas 8 to Annas 12 per acre of "dry" land; the average rate being Rupees 5 Annas 8 for the former, and Rupee 1 Annas 11 Pies 4 for the latter. The cultivator resorts to irrigation wherever possible, for which he pays, if his land is entered on the revenue register as "dry" land, an extra charge varying from Rupees 3 Annas 8 to Rupee 1 Annas 8 per acre, a deduction being always allowed where the process of irrigation entails exceptional expense on the cultivator. On an acre of land assessed at Rupees 3, the yield of paddy averages in value Rupees 12 and the outturn increases or decreases, as a rule, in the proportion of Rupees 2 to every Annas 8 added to or taken from the rent. The maximum yield on an acre of "wet" land may be taken to be 18 cwts., the minimum 120 lb.; on "dry" land the produce per acre varies from 6 cwts. to 96 lb. For every 3 acres a yoke of oxen is required, costing on the average Rupees 30 per pair. The agricultural implements of an ordinary cultivator cost about Rupees 10; that outlay representing the purchase of a plough, hoe, 2 sickles, spade, bill-hook, rake, harrow, and water-buckets. Manuring varies in cost from Rupees 3 to Rupees 9 per acre. With a holding of 5 acres, therefore, the peasant would not be so well off as a retail shopkeeper making a net income of Rupees 8 a month. The mass of cultivators, however, hold less; and—although the expenses of an ordinary cultivator, with a wife and three children, may be calculated at only Rupees 3 Annas 8 to Rupees 4 Annas 8 per month for the family—they are, as a rule, in debt. Twenty acres would be considered a large holding; less than two acres reduces the cultivator to a hand-to-mouth subsistence. Under the favourable regulations in force, cultivable waste land is being annually taken up—a considerable area for the plantation of the casuarina and cashewnut. Agricultural and day-labourers, males, earn from Annas 2 Pies 8 to Annas 3 Pies 4 a day, females about half as much. Smiths, bricklayers, and carpenters obtain, on the average, Annas 6 a day. Since 1850, wages have risen 50, and in some cases, 75 per cent. A comparison of the prices of food-grains in the years 1850-51, 1860-61, and 1870-71—all average years—shows a general rise in the second decade, with a fall in the third decade. Thus rice, selling (according to quality) at 50 and 56 lb. per rupee in 1850-51, had risen to 32 and 36 per rupee in 1860-61, and fallen again to 36 and 38 per rupee in 1870-71; and cholam, which was at 92 lb. for a rupee, rose to 54 for a rupee and fell to 80. Paddy, in the same way, selling in 1850-51 at 104 and 126 lb. per rupee, rose in 1860-61 to 68 and 78, and fell in 1870-71 to 90 and 100. Country liquor shows a reduction in price from Annas 7 Pies 4 to Annas 2 a gallon since 1850. Live stock have not changed notably in value,—a pig costs from Rupees 3 to Rupees 5; a sheep, Rupees 2 to Rupees 3; ducks, Rupees 4 a dozen; and fowls about 4 Annas apiece. The district contains a large number of field labourers called "pudiyauls" of the pariah caste, who receive payment in kind, and are, as a rule, farm hands engaged by the season, but sometimes permanently attached to the estate. The mass of cultivators are, however, tenants of Government, with rights of occupancy terminable at their own option. On private estates the cultivators, where not "pudiyauls," are tenants-at-will, paying rent to the intermediate landlord, sometimes in cash but often in kind, and liable to ejectment at the end of any season. The rates of interest vary from 12 to 24 per cent. on the security of personal goods; from 6 to 9 on large transactions; and from 12 to 18 per cent. on personal security, with a lien on a crop. Five to six per cent. would be considered a fair return on money invested in land.

7. *Forestry.*—There are about 840 square miles of forest land and scrub jungle in this district. The more important ranges are the Kalroyen connected with the Shevaroys and the Jawaudies, which hills form partly the western and northern boundaries of the district. There are numerous small detached hills, the most important and remarkable of which is the Trinomallee which rises to a height of about 2,700 feet. There is a considerable amount of deciduous jungle on the slopes of the above-named hills and on the higher elevations; in the more sheltered parts the forest become much denser. The commonest tree in the district is nammay (Anogeissus latifolia). There are also many maroothoo (Terminalia tomentosa), blackwood, coongliam, vengay (Pterocarpus marsupium), toorinjy (Albizzia amara), satinwood, caroongauly (Acacia catechu), &c. Along the coast line there are large quantities of scrub jungle. There are also numerous mangrove forests between the Vellaur and Coleroon rivers in the alluvial soil. The principal minor products of the district are honey, wax, gall-nuts, avaram, and velvail barks. The revenue is obtained by working the forest on the permit system and the supply of fuel to the railway. There are over 700 acres under plantation, principally casuarina. About 400 square miles of forest land have been selected as reserves. Demarcation and survey are in progress and fire protection is being extended. The district is under the charge of a Third-grade Deputy Conservator with head-quarters at Cuddalore. There are ranges at Trinomallee, Jinjee, Tindivanam, Tiroocoilore, and Cullacoorchy, and sub-ranges at Cuddalore, Chidambaram, Vriddhachellam, Tindivanam and Villoopooram.

8. *Commerce and Trade.*—The list of district manufactures includes indigo, sugar, jaggery, salt, mats, coir, and cloths both of cotton and silk. The salt is made entirely under official supervision. The silk used comes from Mysore; it is dyed at Combaconam, and woven at Chidambaram. In the early part of the 18th century, the East India Company established cloth factories on a large scale at several points in the district, but the industry has now much decayed. Grain, pottery, spirits, and oils, in addition to the articles above noted, represent the internal trade. This is carried on by means of permanent markets in the principal towns, and periodical fairs at

various places—the chief being the "Kartigay" festival at Trinomallee, the "Ardra Darsanum" at Chidambaram, and the annual gatherings at Vriddhachellam, Cuddalore, Killay, Shreemooshnam, Coovaugam, Meilam and Malayanoor. The export trade of the district in 1883 aggregated a value of Rupees 64,26,266 by land and Rupees 8,27,744 by sea. Piece-goods contributed Rupees 8,51,599; oil and oil-seeds, Rupees 28,67,358; grain, Rupees 7,22,412; indigo, Rupees 1,25,193; hides, Rupees 98,580, and sugar, 4,00,081. The imports for the same year amounted in value to Rupees 13,53,119, of which Rupees 9,24,437 entered by land. The leading items were—metal wares, Rupees 2,37,360; piece-goods, Rupees 1,19,465; cocoanuts, Rupees 65,400; twist, Rupees 67,801. The chief centres of traffic are Cuddalore, Porto Novo, Panrooty, Tyagadroog, Tindivanam, Trinomallee, Villoopooram, and Pondicherry (French). The fact that the exports are about five times larger than the imports, points to an accumulation of money in the district. The only industries conducted by European agency are the manufacture of sugar and the spirit called "arrack," the estimated annual value of the outturn being Rupees 2,00,000 and Rupees 10,07,808 respectively. Of district manufactures conducted by native capital, the annual values are estimated at—Indigo, Rupees 12,00,000; oils, Rupees 7,00,000. Along the coast, sea-fishing occupies the population of some 25 villages. The produce is for the most part consumed locally, but a considerable quantity is cured for sale at a distance. The fresh-water fisheries of the district are not important, the total revenue for 1883-84 being Rupees 7,187. Iron ore is found in large quantities in the Cullacoorchy, Trinomallee and Tiroocoilore talooks; but a company, established in 1824 on an extensive scale for working the mines, has since suspended its operations. Quarries of sandstone, blue limestone, and laterite are advantageously worked. The roads of the district aggregate a length of 1,154 miles, maintained by Government at an annual cost of Rupees 1,43,791. The only noteworthy canal is the Khan Sahib, connecting the Coleroon and Vadavaur rivers with the Vellaur; it is 43 miles in length, but being navigable only for small craft, does not carry much traffic. A railway from Madras to Porto Novo, 'en route' for Tanjore, was opened in 1878. The line has been completed and the train is now running from Madras to Tuticorin. A branch railway was opened in 1879 between Villoopooram and Pondicherry (French). The only institutions worthy of note are the "choultries," 210 in number, and the religious edifices, 76 pagodas and 243 mosques, under the control of the Mosque and Pagoda Committee. Two out of the five ancient sites of Shiva-worship—Chidambaram and Trinomallee—are in this district, as also is Shreemooshnam, one of the eight chief places of Veishnava-worship.

9. *Famine, Flood, &c.*—Floods and droughts have been frequent. The former occur chiefly in the valleys of the Ponniaur, Vellaur, and Guddilam, the most notable years of inundation being 1853, 1858, 1871, 1874 and 1880. The floods in the Coleroon were unusually heavy in 1882. It breached its bank; and lands in upwards of 100 villages in the Chidambaram talook were submerged. Famine prices have prevailed ten times within the century. In 1806-07 Government relieved distress by large importations of grain, by the remission of revenue to the extent of Rupees 6,20,000, and by the disbursement of Rupees 2,30,000, on relief works. In 1833-34 the prices of grain doubled, and 18,000 persons were thrown on the relief works opened by Government. Remissions of revenue to the extent of Rupees 1,64,000 were granted. In 1866 relief works were again necessary. Other "famine" years were 1823-24-25, 1867-68, 1873-74, 1875-76, and 1877. Violent storms visit the coast frequently, and the recorded loss of lives and shipping on the seaboard of this district is very great. In April 1749, two merchant vessels and two men-of-war went down with all their crews—one the "Namur," a flag-ship, and the finest vessel of her size in the British Navy, having 750 men on board. The hurricane of October 1752 is recorded to have been the most violent remembered on the coast; and eight years later a cyclone scattered the blockading fleet in the Pondicherry roads. Three vessels of war were wrecked, and three others, with 1,150 Europeans on board, went to the bottom. In 1784, 1795, 1808, 1820, 1831, 1840, 1842, 1853, 1870, and 1871, violent storms, causing a serious loss of shipping and doing great injury on shore, swept the coast of the district.

10. *Medical.*—Epidemic cholera appeared in Cuddalore in twenty-two of the years between 1851 and 1883, the mortality averaging during the last two years 76 per cent. of the persons attacked. Fevers appear to be endemic in some of the western talooks; and in the eastern tracts, leprosy and elephantiasis are prevalent. The chief drugs in the native pharmacopœia are mercury, sulphur, arsenic, lead, bismuth, sulphate of copper, calomel, magnesia biliary, calculi of cattle, musk, safflower, orpiment, ginger, and castor-oil. The mode of treatment is in all cases the same—strict diet with purges. The native doctors (hakeems) never bleed, nor use leeches. Medicated oil-baths take the place of blisters. In cases of delirium, stimulants are applied to the eye-balls. Cattle epidemics, which are frequent, may be classed under the three heads of rinderpest, foot-and-mouth disease (komaury), and tympanitis. The extension of cultivation has of late years been very great, and the pasturage available for cattle has diminished in proportion. The average annual rainfall of the district is 38·95 inches. Seven dispensaries are, altogether or in part, supported by Government, the expenditure for 1882-83 being Rupees 22,974.

11. *General Administration.*—The total net revenue of the district amounted in 1883-84 to Rupees 49,18,730, being Rupees 4,87,650 in excess of the revenue for 1870-71 which again was Rupees 11,85,350 above that for 1860-61. The total expenditure on civil administration in 1883-84 was Rupees 7,23,694. The land revenue contributed in 1883-84, Rupees 31,66,708; salt, Rupees 10,66,240; abkarry (spirits, and drugs and opium), Rupees 3,68,730; sea customs, Rupees 16,566; land customs, Rupees 16,344; stamps, Rupees 76,863; court fees and suits, Rupees 1,25,895; license-tax, Rupees 10,212; forests, Rupees 31,444; registration fees, Rupees 27,881; stamping and printing fees, Rupees 2,904; and school fees, Rupees 8,943. The police force cost Rupees 1,51,334. There is now very little crime in the district. On the assumption of the Government of the Carnatic by the Company, the police of the district consisted of the village watch only, presided over by local inspectors. This system was at once abolished, the police being placed under the District Judge, and authority centralized. In 1816, the control of the force was vested in the District Magistrate; and this system continued till 1859, when the new Madras Constabulary (organized on the plan of the English County and Irish Constabulary) was introduced. The history of the District Courts has already been given. The district is administered by a Collector and Magistrate, with three Sub-divisional Assistant Magistrates and two Deputy-Collectors under him. Over each talook is a tahsildar, assisted by a deputy tahsildar, except in Cullacoorchy where there is no deputy-tahsildar. The jails of the district contained during 1882 a daily average of 211 prisoners, at a cost per head of Rupees 79½ per annum in the district jail and Rupees 50 in the subsidiary jails. The average earnings of each working prisoner was Rupees 13; the rate of mortality, 7·36 per cent. Education is represented by 4 higher schools, 23 middle-class, and 873 elementary and two normal schools. There are two municipalities, Cuddalore and Chidambaram. In 1870-71 the district post office distributed 235,462 covers, 210,973 being letters.

BELLARY.

Description.—This district lies between 14° 30′ and 15° 58′ N. lat., and 75° 43′ and 77° 45′ E. long.; area, 5,904 square miles; population in 1881, 736,807. The river Toongabudra bounds it on the north, separating it from the territories of the Nizam; on the east lie the districts of Cuddapah and Anantapore; and on the other two sides lies Mysore.

2. *Physical Geography.*—The general aspect of the district is a plain, devoid of trees, broken at rare intervals by granite masses rising abruptly from the surrounding level of black cotton soil. Water is scarce throughout, and vegetation rare. Two rivers drain the district. The Toongabudra, forming the northern boundary, contains water all the year round, and in the rainy season swells to formidable dimensions. On its banks stand the towns of Humpasaugar, Hospett, Humpy, Cumply; and at Rampore a bridge of 52 piers carries the railway across. The Hagary rises in Mysore, and after a course of 125 miles joins the Toongabudra near Halaicottah. Though shallow for two-thirds of the year, this river when in flood overflows its banks, and in 1857 washed away the town of Gooliem. The only hill ranges worthy of note are those of Sundoor and Cumply in the west. Scattered over the district occur detached masses of granitic rock. Iron of good quality abounds, and copper, lead, antimony, manganese, and alum are found. Saltpetre is extracted from the soil. The fauna of the district include among mammals, the tiger, panther, cheetah, wolf, black bear,

hyæna, wild boar, antelope, and samber deer; the first and last being rare. Among birds, the order of "raptores" is largely represented. The bustard, florican, pea-fowl, partridge, quail, snipe, goose, and water-fowl afford good sport. Venomous snakes abound. The flora are scanty, —the babool (Acacia Arabica), ber (Zizyphus jujuba), and wild date (Elate sylvestris) being the chief indigenous trees, but in the topes and gardens are found the mango, tamarind, cocoanut palm, banian, and neem. Forests will be mentioned below.

3. *History.*—Within the district lies the site of the ancient city of Vijianugger, and its annals therefore date back to the first Mahomedan invasion of the Deccan, in the fourteenth century. But it was not until 1640, when Sivajee, received a formal grant from the Sultan of Beejapore of the forts of Bellary and Adony, with the country adjacent, that the tract corresponding to the present district entered upon a separate history. The old district round Gooty remained then subject to Golcondah, but farther south the Poligars of Royadroog, Anantapore, and Hurpanhully became tributary to the Mahrattas. Sivajee died in 1680, and soon afterwards Aurungzeeb advanced upon the Deccan and overran the district. His authority, however, was never formally established, and the revenues of Bellary were farmed out to Poligars, who deducted what they could for military and other expenses, and remitted the balance to the Imperial treasury. After the death of Aurungzeeb, and the rise of the Nizam's power, several of the Bellary chiefs, and especially those of Gooty and Sundoor asserted a sort of independence. Meanwhile the Mysore power had arisen; and, on the death of the Nizam, Hyder Ally, who was in possession of Mysore, accepting the invitation of Basaulat Jung, the governor of Adony, to assist him against the Mahrattas, overran the district. Codicondah, Madaksira, Hindoopore, Hurpanhully, Royadroog, and Chitaldroog submitted. Gooty however resisted. The Mahrattas took the field in force to regain the lost fortresses, and Hyder Ally was defeated at Rettihully, and compelled to abandon his conquests with the exception of Royadroog, Chitaldroog, and Hurpanhully. The Mysore war broke out in 1767, and Hyder Ally, to recruit his finances, levied contributions from the surrounding districts. Gooty, however, again resisted, and at Bellary, then a dependency of Adony, Hyder Ally experienced little better success. In 1774 the Poligar of Bellary, Basaulat Jung, withheld payment from the Nizam, and Lally was sent with a force to reduce him to obedience. He appealed for help to Hyder, who defeated the Adony troops, but kept Bellary for himself. A third attempt upon Gooty was successful, and, making it his head-quarters, Hyder continued to hold his own for two years against both the Mahrattas and the Nizam. Throughout these campaigns the Poligars of Chitaldroog, Royadroog, Hurpanhully, and other divisions of the present district, acted as the acknowledged tributaries of Mysore. On Hyder Ally's death all these divisions asserted their independence; but Tippoo, who had succeeded his father, captured the fortresses one after the other, put the chiefs of Royadroog and Hurpanhully to death as a warning to the rest, and collected all the arms and stores of these chiefs in the strongholds of Gooty and Bellary. Tippoo was in 1789 involved in war with the British and on the conclusion of peace, and the partition of Tippoo's last conquests, the present Bellary district was made over to the Nizam. War again broke out, and on the capture of Seringapatam and death of Tippoo a redistribution was effected; Bellary district being divided between the Nizam and the Peshwa. In 1800, the Peshwa's share was resumed by the British and the Nizam, in exchange for a subsidiary force of British troops, ceded to the Company the tract acquired by the treaties of 1792 and 1799, including Adony and the present district of Bellary. The first attempt of the Company to collect the revenue of this new territory provoked a general rebellion of the Poligars, but a force under General Campbell expelled those who were most active in hostility from their estates, and the rest did not continue their resistance. The revenue administration was then taken out of the hands of the Poligars entirely, and the maintenance of armed bodies was prohibited, the whole of the Ceded Districts being formed into a Commissionership under Colonel Monro as principal Collector, and on his retirement re-formed into the two zillahs of Cuddapah and Bellary, with a Collector assigned to each. Since that date the peace of the district has been only twice disturbed. In 1818, the Pindarries made a raid, plundering Hurpanhully and making ineffectual assaults on Coodligy and Royadroog. A force was despatched from Bellary, which without difficulty expelled them. In 1857 there was a rising in Dharwar district, and the Tahsildar of Hurpanhully joined the insurgents with a force collected within his talook. These marched upon Ramandroog, but were overtaken by British troops at Coppal. The defences of the army were stormed by a wing of the 74th Highlanders, and this put an end to the disturbance.

4. *Archæology.*—Archæological traces exist of Chola sovereigns, but they are not numerous; while there is no evidence where it might have been expected of a Chalookya occupation. No Cadamba inscription has as yet been found, and only one of the Hoysala Ballaulas. Along the banks of the Toongabudra archæological remains will probably hereafter be discovered. The archæological interest of the district centres in the remains of the old city of Vijianugger, 33 miles west by north of Bellary, on the Toongabudra; at the spot occupied by the modern town of Humpy. Regarding this Vol. III should be consulted. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—A census of the old Bellary district including Anantapore, taken in 1866-67, gave a total population of 1,304,998, but the enumeration of 1871 showed this to be as much as 40 per cent. in some talooks below the actual numbers, the revised total standing at 1,668,006—males 860,173, females 807,833; or only 93 females to every 100 males. According to the census of 1881 the population of the present district of Bellary is 736,807—males 373,948, females 362,859; and that of the talooks, which now form the separate district of Anantapore, 599,889—males 305,452, females 294,437. Dealing with the present district alone, the houses number 175,480 (10 per cent. being returned as uninhabited), and are, owing to the bare, wind-swept character of the district, more substantially built than in other parts. The number of inhabitants per house averages 5·1, ranging from 4·8 in the Sundoor estate to 5·2 in other talooks. Of the total population, 662,072 persons, or 90 per cent., are Hindoos, and 9·5 per cent., or 69,767 Mahomedans. Classified according to worship, the Hindoos are nearly equally divided between Shiveites (747,777, or 48·7 per cent.) and Veishnavites (712,215, or 46·4 per cent.), the small remainder of 4·9 per cent. being returned as "Lingayets and others." Classified according to caste, the Brahmins aggregate 2·3 per cent. of the Hindoo population; Cshatriyas, ·4; Veisyas, 1·7; and Shoodras, 95·6. The very small proportion of the upper castes is remarkable. Among the Mahomedans, 94·6 per cent. are Soonnees, 1·9 Shiahs, 0·4 Wahaubies, and 3·4 of no specified sect. Arranged according to classes, the Sheikhs form 60 per cent. of the whole, and the Syeds 10 per cent., the rest being returned as Moghuls (5,801), Pathauns (1,291), and "others" (24,386). The Christians number 4,140—1,217 being Europeans—and 60 per cent. are Roman Catholics. The once dominant religion of the Jains has only 620 members. The adult male population of 362,859, classified according to occupations, shows 32 per cent. agriculturists, 12·4 per cent. industrial, ·4 in domestic service, ·5 commercial and ·2 per cent. professional, the remainder, about 53·9 per cent., appearing as "unproductive." The only caste calling for special notice is the vagrant Corachavandloo—pre-eminently the criminal class of the district. They speak a gipsy dialect of their own, and their features show a Tartar origin. In manners and customs they differ radically from their neighbours. Their houses are of mats woven from water-grass; they eat three times a day, and rats and mice find a place in their dietary. They revere neither temples nor Brahmins, and bury their unmarried dead. Early marriages are unknown among them, and a man can support only one lawful wife. Villages number 1,840, exclusive of the villages in the Sundoor State which are 23 in number, 1,572 being classified as "cusbahs" and 1,268 as "moozrahs" (attached hamlets). Bellary, the head-quarters of the district, has (including the garrison) 53,460 inhabitants; Adony, 22,441; 10 other towns have over 5,000, and 31 more over 2,000 inhabitants each. Roughly, therefore, about 85 per cent. of the total population may be considered as a rural population. Both Canarese and Teloogoo are spoken, the former language prevailing in all the talooks.

6. *Agriculture.*—Of the total area (3,762,286 acres), about one-nineteenth is barren land, including village and temple sites, tanks, cattle-stands, burning-grounds, &c., as well as actually sterile ground; and of the remainder (3,565,458 acres) about one-third, or 1,111,853 acres, is under cultivation and assessed; and about one-fourth more, or 815,300 acres, is held inam, or under a free grant. The area actually under tillage may therefore be taken at 51 per cent. of the total, and 54 per cent. of the cultivable area. The area cultivable but not cultivated is 1,638,305 acres. The cultivated area is officially divided into "wet," and "dry." "Dry" land is that in which there is no artificial irrigation. The chief crops grown are cholam and korra, and on these depends the food-supply of the masses.

"Wet" lands, or those artificially irrigated, are almost exclusively devoted to rice and sugar-cane. In gardens are raised cocoanut, betel-leaf, plantains, wheat, tobacco, chillies, turmeric, vegetables, and fruits. Cotton is grown on dry land, the regar, or "black cotton soil," being the soil always preferred, the outturn on the red ferruginous or grey calcareous soils, being on the average only 25 per cent. of that on the black soil. A fair crop would be 375 lb. of uncleaned, or 87 lb. of cleaned, cotton. Exotic varieties of cotton (Hinganghaut, Orleans, Sea Island, &c.,) have been tried, and have uniformly failed. The total acreage under the various crops may be thus estimated—grain crops, 1,258,000 acres; oil-seeds, 53,000; cotton, indigo, and sugar-cane, 222,000. Manure, wherever obtainable, is applied, and the use of green foliage for this purpose is almost universal. No regular rotation of crops obtains, but the principle that two exhausting crops should not be sown successively on the same field is everywhere recognized. According to the statistics of 1866, there were then in the whole district 466,000 sheep and 496,000 horned cattle. The price of field bullocks ranges from Rupees 55 to Rupees 100 a pair. Buffaloes, though cheaper, are seldom used. The agricultural implements correspond in character to those in use in Europe, but are all of the most primitive kind. An improvement, however, has been remarked of late in many points. Thus the old cart with solid wheels of stone or wood, the axle revolving with the wheel, is giving place to open wheels, with tire, spokes, and fixed axle. Again, in outbreaks of cattle distemper, the efficacy of segregation has of late been recognized. The cultivated area is parcelled out into 78,010 separate holdings, the average holding being about 14·2 acres of "dry" and 1·4 acres of "wet" land; the average assessment is Annas 12 per acre of "dry," and Rupees 5 Annas 11 per acre of "wet" land. Of the total number of landholders, 46,300, or more than half, occupy holdings paying less than Rupees 10, only 9,000 occupy holdings paying more than Rupees 30 per annum. The "wet" land of the district stands on the official register at 2 per cent. of the total area; the sources of irrigation being tanks of all sizes (518), river-channels (115), spring channels (437), and wells (8,630). Prices have for many years been steadily rising; and where money payments obtain, agricultural labourers and ordinary artisans now receive double, and even treble, the wages given before 1850. The field labourers, however, are, as a rule, paid in kind, and the rise of prices, therefore, has not affected them. In other cases, the cultivator class has benefited, the cotton growers notably, many of whom during the American war made considerable fortunes. Rice during 1840-50 averaged 24 lb. for Annas 8, between 1850-60 rose to 20 lb., and since 1860 has averaged 10 lb. for Annas 8; cholam during the same period rose from 58 to 38 and 23 lb. for Annas 8, and raggy from 62 to 46 and 25 lb.; cotton also rose in value from Rupees 34 per candy to Rupees 55 and Rupees 146.

7. *Forestry.*—In forests capable of giving at present much produce the district is very poor, though areas of fair size have been selected on the Copper Mountain range near Bellary and in the talooks of Hospett, Royadroog and Coodligy to be constituted reserved forests under the new Forest Act. At present most of these forests are bare, though in places, and notably at Malpangoody where it has been long protected, there is a fair growth of yepi (Hardwickia binata). Some areas, especially in the Adony and Auloor talooks, have also been selected on which is a growth of babool (Acacia Arabica). But the chief forests of Bellary lie in the Sundoor State, from the rajah of which a lease has been taken of 40,000 acres in three ranges round the Sundoor valley and the station of Ramandroog. These forests have a good vegetation, especially on the summit of the plateau, where about 1,500 acres of compact growth are found. On the slopes the forest is mostly deciduous with teak, ebony, Terminalia tomentosa and other trees with some sandalwood. Towards the base, where more cutting has gone on, the growth is naturally not so good. Great endeavours are being made to protect these forests from fire and they have so far been successful. If they can be kept up permanently the forests of Sundoor will soon become very important. The forest head-quarters are at Bellary; and ranges have been formed at Sundoor, Coodligy, Hospett and Royadroog.

8. *Commerce and Trade.*—Among the agricultural products of the district, cotton takes the first place. In the raw state it is largely exported both to Madras and Bombay, where it is pronounced equal to the best Western growth; and the manufacture of cotton goods—cloth, rope, tape, and carpets—occupies large numbers of the people. Oil-seeds, sugar-cane, hemp, and indigo, all represent important mercantile interests. In woollen goods, the chief articles of export are the blankets of the Coodligy talook, for which there is a demand all over the Presidency. The woollen carpets, however, cannot compete with those of Ellore and Mysore. Iron-smelting is carried on in the Hospett talook. The Madras Railway (North-west Line) runs just within the eastern boundary of the district for nearly a quarter of its extent, passing the town of Adony, a branch line midway being carried due west to the town of Bellary. The existing road communication is considered insufficient for the wants of the district. One main road traverses it from Madras, through Bellary to Bombay. The principal ferries over the Toongabudra are at Humpasaugar, Hatcholly and Maudavaram, and over the Hagary at Permadevanhully and Moka. The right of ferrying is rented out at about Rupees 9,000 per annum, which supplements the regular road fund. Numerous Local Funds contribute to the district revenue. The "Public Bungalow Fund," derived from the fees paid by travellers for accommodation in the public rest-houses; the Pound Fund and the Choultry Fund, derived from economies in the administration of the resources of endowed charities, sufficiently denote the institutions of the district. There are no newspapers but there is one private printing-press in Bellary.

9. *Famine, Flood, &c.*—The earliest famine recorded is that of 1792-93. In that year rice sold at 8 lb. for a rupee, and cholam, the staple food of the masses, at 24 lb. for a rupee. In 1803, prices rose 300 per cent., and wholesale emigration took place. In 1833, the year of the Goontoor famine, when in that district 150,000 persons, out of a total of 500,000, died from want of food, cholera followed the famine, and in Gooty and Bellary 12,000 persons died during the outbreak. Grain riots occurred in several places, and there was a considerable mortality from starvation. Disasters, local in their incidence, accumulated in Bellary between the years 1851-54. A storm swept over the district, damaging the tanks and irrigation works, in 1851; and before the repairs were completed, heavy and unseasonable rainfalls (1852) ruined the crops. In 1853, the total fall of rain was only 6 inches and famine set in. One-third of the cattle in the district died, but owing to the prompt recourse to relief works the mortality among the people was not great. In 1866, the failure of the rains doubled the price of food, and relief works being opened, 21,000 persons crowded to them. Cholera broke out, and in many villages the death-rate was so high that the panic-stricken inhabitants ceased to bury their dead. The storm of 1851, above referred to, was of remarkable violence, and being accompanied by torrents of rain, swept away the towns of Gooliem and Nagaradona, as well as several villages, destroyed the roads and canals, and breached 253 of the largest tanks in the district. Much valuable land was rendered sterile by the deposits of sand, and the loss in property and cattle was enormous. Bellary formed one of the districts most severely affected in the great famine of 1876-77. It was the centre of an extensive system of organized relief, both in the shape of public works and gratuitous distributions of food.

10. *Medical.*—The climate is extremely dry, the average annual rainfall being only 17 inches. The daily temperature ranges from 67° to 83° in November and December, and rises to an average of 93° during April, the yearly mean from January to October inclusive being 84°. Since 1820, eighteen years have been officially recorded as seasons of epidemic cholera, the mortality in 1845 being 18,000, and in 1866 over 20,000. Fever exists in an epidemic form, but in 1834, 1841, and 1865-66, the mortality from this cause was especially high. Ophthalmia is common, owing to the dryness of the atmosphere and the glare from the granite rocks. Cattle-disease was epidemic in 1842, 1843, and 1844; occurring again in 1847, 1848 and 1849. In 1857, the loss of cattle from murrain was very great, as also in 1868. During the late famine, cattle perished in great numbers. Gratuitous medical advice and attendance is provided for the poorer classes by the civil dispensaries at Hospett, Adony, Auloor, Coodligy, Royadroog, Cumply, Hurpanhully and Bellary, the expenses being defrayed partly by local subscription, but mainly by municipal grants. The mortuary returns for the district during the three years ending 1870 give an average mortality of 21,000, or about 13 per thousand on the total population. The average mortality for 1882 and 1883 is 13,864, or about 18 per thousand on the total population.

11. *General Administration.*—Until 1808, when Bellary was first recognized as a separate district, its history forms part of that of the Ceded Provinces generally. With the rest it suffered throughout all the changes of government from anarchy and extortionate revenue collectors. In 1800, when the district was ceded to the Company, it was found that 30,000 armed men, in the pay of 80 different chiefs, were quartered upon the people, and maintained entirely by

forcible requisitions from the cultivating classes. Colonel Monro, the first Collector, surveyed the Ceded Provinces, Bellary included, and, assessing the lands at something below the average of the collections made by the Mysore rulers and the Nizam, settled for each field directly with the actual cultivator. The revenue collections from the Bellary talook, during the nine years in which this system obtained, averaged annually Rupees 22,71,420. In 1808, the Ceded tracts were divided into the districts of Bellary and Cuddapah; and when the system of triennial leases was introduced in the following year, the revenue collections in Bellary rose to Rupees 24,95,140 per annum. In 1812 the triennial leases were changed to decennial, the result being at the end of the ten years a decreased average of receipts, Rupees 24,32,070—a decrease owing to the general reduction of assessment directed in 1820. In 1822, the original system of settling with the cultivators direct was reverted to, and a further general decrease of assessments introduced. The result was a further reduction of the average of land revenue, pure and simple, between the years 1822 and 1830 to Rupees 20,73,730 per annum; between 1830 and 1840 it rose to Rupees 29,20,000; between 1840 and 1850, fell again to Rupees 22,10,000; and between 1850 and 1869, rose to Rupees 33,60,000. The land revenue of Bellary and Anantapore amounted to Rupees 26,14,000 in 1875, fell to Rupees 24,03,000 in 1877, and is returned at Rupees 11,13,000 for 1882 for the present district of Bellary. Other sources of Imperial revenue (as distinguished from Local Funds) are abkarry, or excise, yielding on an average Rupees 4,26,630 per annum; stamps, Rupees 1,01,670; license-tax, Rupees 24,600; and opium, Rupees 7,300. Under the name of "moturpha" the income-tax had from an early period been levied from the non-agricultural classes, and being continued under British administration until 1837, yielded, on the average, Rupees 2,82,060 per annum. In 1860, "moturpha" was formally abolished, and the income-tax imposed. This in turn was abandoned in 1865, between which date and 1869 various substitutes, in the shape of license and certificate taxes, have been tried. In 1869 the income-tax was again established, and the annual receipts from this source were Rupees 57,000, and was continued at various rates till 1873. Civil justice is administered by three grades of courts—the village moonsifs, 1,252 in number; the 2 district moonsifs; and the court of the civil judge. The last is also the sessions court for criminal cases; subordinate to it are the village magistrates, the subordinate magistrates, and the full power European magistracy. For the confinement of prisoners there is a sub-jail in each talook, with one district jail at Bellary. The last is capable of holding 400 prisoners. The village police or taliaries of the district aggregate a total strength of 2,338. The regular police force numbers 712 officers and men of all ranks, being in the proportion of 1 constable to every 1,033 of the population. The municipalities are two in number—Bellary and Adony, with annual incomes of Rupees 65,000 and Rupees 20,000, expended yearly to almost the full amount in local improvements. Education of an elementary kind is carried on in the pial or village schools, one or more being established in every considerable hamlet. For higher-class teaching, grants-in-aid are given to a few schools, while 1 college at Bellary with a daily attendance of 50 is supported by Government, the fees of the scholars covering a portion of the expenses. The London Missionary Society and the Roman Catholic Church have old-established missions in the district, maintaining between them several schools and two asylums for the poor.

BILIGHERRYRUNGAM.

Description.—This is a chain of mountains situated for the most part in the south-east of the Mysore plateau, and dividing that territory from the Collegaul talook of the Coimbatore district. Formerly a larger portion belonged to the Coimbatore district, but in 1874 as a result of boundary disputes a considerable transfer was made to Mysore. The mountains consist of three main parallel ranges running due north and south, with numerous offshoots. The Cauvery river flows round their northern end, while they are separated from the Neilgherry Hills at their southern extremity by a gap of about twenty miles of level country. They are about thirty miles in length from north to south and ten in width, but only about ten miles of the central portion are densely covered with forest, as towards the end the hills become lower and the jungle lighter. A good road passes through a gorge towards their southern end and descends by the Hassanore ghaut into the Coimbatore district, which is about 1,000 feet below the general level of the Mysore plateau. The hills are practically unknown to Europeans. The western range is lower than the ranges further east. It is covered with comparatively small timber and bamboos, as there is no great depth of soil towards its northern end; in the Yelandoor talook of Mysore is a mass of granite, facing westwards, named "the Bilicull" or "Biligherry" (white rock); and from this the whole range is geographically designated, though, as is common in India, the natives have names for each portion of the hills, and do not know the whole by any collective appellation. The temple on the summit to the god Biligherry Rungasawmy (the Sanscrit Swetadry) is of great antiquity, and is supported by an endowment of two villages, yielding a revenue of 950 rupees. On the summit of a neighbouring peak are the ruins of an old fort. Between the westernmost range and the next range to the east lies a deep valley, along which the Honnally stream flows southwards before its exit westwards into open country. This valley is a tract of great interest as a specimen of quite primeval forest. Even elephants and bison are seldom seen here; the dense foliage overhead prevents grass growing beneath, so there is nothing for them to eat; but they form a safe retreat for animals in the neighbourhood when the jungles are burning during the hot weather. This tract is known as Mazheicaud or rain forest. The upper range consist of a succession of high hills and breaks, with extensive sholahs, in the depressions.

2. *Rivers.*—The chief river to the west of the hills is the Honnally, which flows through the Yelandoor talook of Mysore and falls into the Cauvery about fifteen miles above the Cauvery falls. On the east there are various streams fed from the most easterly slopes, which under various local names, such as Jadatala, Wodandoray, and Byloor streams, unite and join the Cauvery below the falls. Towards the northern extremity of the hills, there is a large valley between the main ranges whence flows the Goondalam stream, which flows northwards in several small arms and joins the Cauvery a few miles from Collegaul.

3. *Climate.*—These hills catch a certain amount of rainfall from both monsoons; from June to September, during the south-west monsoon, the fall is generally however rather lighter than that during the north-east in October and November. The temperature is moderate, usually between 60° and 75° F.

4. *Cultivation.*—A small experimental coffee estate did not prove successful. Cinchona has been tried with rather more success in the neighbourhood of a place known as Montgomery's bungalow. Most of the sholahs have at one time or another been felled for raggy cultivation by the hill-tribes, so that growth is secondary. The hill-tribes now are not, as a rule, permitted to fell sholahs; they therefore cultivate, with more or less success, small areas of grass land.

5. *Hill-tribes.*—These consist entirely of Sholagar. They are timid and inoffensive; not as a rule great hunters when left to themselves, but excellent trackers. Unlike the Wynaud Coorumbar, or the Anamullay Malasar, but like the Anamullay Kadar, they will not eat bison.

6. *Fauna.*—These comprise elephants, bison, samber, barking deer, Elliot antelope, spotted deer, pig, tiger, panther, bear, wild dog, porcupine.

7. *Flora.*—The sholahs resemble those of the Neilgherry plateau. The hill slopes contain a certain amount of teak among less valuable deciduous forest. The lower valleys contain some sandalwood.

BOBBILY.

[*For description of this zemindarry, see the foot-note in article on Zemindarries, Vol. I, Chapter I.*]

BRITISH BURMAH.

[*For description of this province, see the article on Relations with Neighbouring States and Provinces, Vol. I, Chapter I.*]

BUNGANAPULLY.

Description.—This is a zemindarry estate in Kurnool district, lat. 15° 2′ 30″ to 15° 28′ 50″ N. long., 78° 1′ 45″ to 78° 25′ 30″ E.; present area, 166 square miles, though formerly nearly 500; population (1881) 30,754, viz., 5,952 Mahomedans (chiefly Soonnees) and 24,793 Hindoos, of whom more than half belong to the cultivating and shepherd castes. Bounded by the Coilcoontla, Nundiaul, and Putticondah talooks; it comprises the western half of the basin of the Coondair, and is also watered by the Jurrair river. The estate contains 64 towns and villages, of which Bunganapully, the capital, has a population of 2,822, and seven others over 1,000. Of the whole area only 57 square miles (36,524 acres) are waste, the rest of the estate being under cereals, cotton (of which the cultivation is annually increasing), and indigo. There are no forests, and the waste lands supply pasturage. The trade consists almost entirely of the interchange of local produce, but at the markets, cotton and silk cloths, chintz, and lacquered wares —products of local industry—are sometimes collected for exportation. Eighty years ago, copper-mines were worked, and near Bunganapully there are diamond pits, yielding annually stones to the value of a few pounds. The estate has no railway or first-class road; the few schools are of the most primitive type, and endowed charities do not exist. The annual revenue amounts to about Rupees 2,00,000, but of this sum two-thirds are drawn by 17 minor jagheerdars, relatives of the nawab, and the remainder, after deducting Rupees 23,917 for expenses of the palace and administration, does not suffice to meet the interest accruing on the debts inherited from his father by the present chief. More than half of the whole estate has passed from the nawab's hands to other members of his family; but out of the 17 alienations thus existing, 9 might be resumed if the nawab exercised his privilege of refusing the right of adoption to the females at present holding the estates. Of the others, 4 are held by courtiers of the Nizam of Hyderabad. The land revenue is farmed, the villages being assigned by auction to the highest bidder, and the farmer sub-lets the lands to the cultivators. The tenant therefore holds at will only, and is liable at all times to enhancement of rent, without the option of relinquishing his holding. Historically, the estate has but little interest. It was granted in the seventeenth century by the Moghul Emperor Aurungzeeb to Mahomed Beg Khan, son of his Vizier, in whose family it remained for three generations. The chief dying without male heirs, the estate was given by the Nizam (1764) to the ancestor of the present owner. In 1800, the suzerainty was transferred by the Nizam to the British Government, and, in consequence of local disorder, the estate was administered by the Collector of Cuddapah from 1825 to 1848. In the latter year it was restored, the Governor of Madras renewing the previous grants and conferring larger civil and criminal powers upon the jagheerdar. The title of nawab was bestowed upon the present chief in 1876, on the occasion of the visit of the Prince of Wales to the Presidency. The Collector of Kurnool is ex-officio Political Agent.

CALASTRY.

[*For description of this zemindarry, see the foot-note in article on Zemindarries, Vol. I, Chapter I.*]

CANARA (SOUTH).

Description.—This district is situated on the western coast, between 14° 31′ and 15° 31′ N. lat., and between 74° 1′ and 75° 2′ E. long. It is bounded on the north by North Canara (Bombay), on the south by Malabar, on the east by Mysore and Coorg, and on the west by the Indian Ocean. The area is 3,902 square miles; the population, based on census of 1881, 959,514 inclusive of 3,672 souls belonging to the Amindivy Island (of the Laccadive group) attached to the district. The administrative head-quarters and chief town is Mangalore.

2. *Physical Geography.*—South Canara is intersected with streams, and, from the broken nature of the country, the scenery is most varied and picturesque. Abundant vegetation, extensive forests, numerous groves of cocoa-nut palms along the coast, and rice-fields in every valley, give refreshing greenness to the prospect. The most densely-inhabited tract, which is situated along the seaboard from north to south of its entire length, and extends into the interior from 5 to 25 miles, may be roughly described as a broken tableland of laterite, the height of which varies from 200 to 400 feet near the coast and rises to 600 feet towards the ghauts. Inland, this so-called tableland is bounded by the lower spurs running down from the ghaut range. These spurs, which are numerous and of every conceivable form, are for the most part forest-clad, and consist, like the parent mountains, of gneiss, schist, quartz, hornblende, and granite. Of detached mountains, properly so called, there are none; but the rock of Jemalabad, near Beltanguddy, and the hill known as the Ass's Ears, are well-known landmarks. The laterite downs near the coast are furrowed in every direction by numerous valleys of rich alluvial soil, by which the heavy rainfall of the south-western monsoon drains away. The laterite itself is an iron clay lying on the top of a granite bed. The granite is found at the base of every river, and constantly breaks above the surface of the laterite in round conical hills, sometimes covered with small trees, and in other places naked and bare. The Western Ghauts, rising from 3,000 to 6,000 feet, form a bulwark boundary on the eastern side of the district. They are crossed by several passes. The chief of them are the Sumpajey, Agoombe, Charmaudy, Hyderghur or Hosanguddy, Munjarabad, and Colloor, all of which connect the plateau of Mysore and Coorg with the lowlands of South Canara. Up to these passes, good cart roads lead from Mangalore. None of the rivers of the district exceeds 100 miles in length. They all take their rise in the Western Ghauts, and, owing to the unfailing and heavy monsoon, become raging torrents at one time of the year and rocky or sluggish at another. Many of them are navigable during the fair weather for from 15 to 25 miles from the coast, and admit of a considerable boat traffic, which brings down to the coast the coffee and other produce of Mysore and Coorg, and the rice grown in the interior. The principal of these rivers are the Netrauvaty, the Gooroopoora, the Gungolly (or Gurget-hole), and the Chundragherry (or Payashwany). From the nature of the country, with its numberless streams and their uncertain fords, the loss from drowning every year is considerable, the annual average number of deaths being 130. Owing to the rapid fall of the streams, especially in the interior, water might be used as a motive power without difficulty, but it is not so applied by the people. There is a small and pretty lake at Caurcal, and an undrained fresh water lagoon at Coondapore. The district is rich in a fine clay, well adapted for pottery, and several firms are engaged in the manufacture of machine-made tiles and bricks. Kaolin is also of frequent occurrence underlying the laterite. Gold is found in small quantities at Mijarra, garnets at Soobramanya and Kempahalla. Iron exists in the Oodipy and Oppinanguddy talooks, but it is not worked. The forest land is of vast extent, but the exact area is unknown, as the district has never been surveyed. The forests formerly abounded in game, which, however, is rapidly decreasing under incessant shooting without any close season. There are 7,172 guns in the district; most of them are constantly in use. One effect of the great destruction of game is, that tigers and other beasts of prey are driven by the decreasing quantity of hog and spotted deer to feed upon cattle. Elephants, tiger, panther, samber, the axis, and other small deer, and wild hog are to be found; but the Canara jungles are the especial home of the bison. The people will not kill snakes, and no rewards are usually claimed for their destruction. The total number of deaths in the last three years is returned at 114 from snake-bite, and 6 from wild beasts.

3. *History.*—The history of South Canara is not easily traced. From an ethnological point, the country has no independent existence. The southern portion is Malayalam, the middle Tooloova, and only the north in any sense Canarese. The very name is a misnomer. Canara or the Carnatacadesha (the country where the Canarese people dwell, and the Canarese tongue is spoken) is properly the land above the ghauts, of which Mysore, Coorg, and part of the Ceded Districts form the most considerable tract. By one of the strange processes of history, the name strictly applicable to this region (Carnatic) has been transferred to the Tamul country below the Eastern Ghauts, while the name of Canara is given to the Malabar-Tooloova country on the western coast. South Canara, at least as far north as Oodipy, formed part of the ancient kingdom of Kerala; and certainly, as far north as the Chundragherry river, the people and language belong to Malabar. Passing over the legendary period of Parashoorama, it appears that in 1252 A.D. a Pandyan prince conquered and ruled the country, and his successors gave place (A.D. 1336) to the Vijianugger Rajah. In 1564, when the power of the latter dynasty was broken at the battle of Talicote, the Governor of Bednore (originally

only a rich ryot) threw off his allegiance and established the kingdom of Bednore, to which in process of time Canara from Honore to Neeleshwar was added. In the earlier dealings of the Company's factors with the Chiracal Rajah, this kingdom is spoken of as "our enemy Canara." The northern part of Canara, probably as far south as the confines of Tooloova, was ruled in early times by the Cadamba (A.D. 161 to 714) and Ballaala (714-1335) dynasties. The Ikkairy Rajahs of Tooloova (1560 to 1763), like the Bednore Rajahs, to whom latterly they became feudatory, rose to power on the ruins of Vijianugger. In 1763, when Hyder Ally conquered Bednore, he despatched detachments to secure the western coast; and Mangalore and Basroor were occupied within a few months of the fall of the capital. Immediate steps were taken to utilize the possession of the seaboard and found a Mysorean navy; and in 1766, Hyder passed through the district to the conquest of Malabar. Two years afterwards, an English force from Bombay captured Hyder's fleet, and occupied Honore and Mangalore, only to surrender them a few months later to Hyder's troops under Tippoo. One of Tippoo's first acts was the deportation and forcible conversion to Mahomedanism of a large portion of the Christian inhabitants of Canara. In 1783-84, South Canara was again the scene of war between the English and Mysore troops, which terminated, after a gallant defence of over nine months, in the evacuation of Mangalore. South Canara finally became a British possession in 1799. In 1834, on the occasion of the deposition of the Coorg Rajah, the inhabitants of Amara and Soolya petitioned for annexation. The Government complied with their request, and the Magannies were added to the Poottoor division of South Canara. This, however, caused some dissatisfaction, and one Calianappa Soobroya, taking advantage of the feeling of loyalty still retained towards the old Coorg dynasty, raised an insurrection in 1837. A want of vigour on the part of the local authorities gave courage to what was at first a mere riot. The insurrection spread, and the troops retreated from Poottoor to Mangalore. The rebels followed and sacked the civil offices and jail in the face of the troops, but soon retired and broke up into small gangs of marauders. These were speedily dispersed, and the ringleaders seized and punished; and in a very short time the whole country was quieted. At no time was this insurrection formidable; the men were armed with clubs and a few matchlocks, and a determined front would have broken it at any time. The records were destroyed, however, and much property plundered. In 1860, the province was divided into two districts, North and South Canara, of which the former was transferred to the Bombay Presidency in 1862.

4. *Archæology.*—The worship of Bhootas, or devils, abounds, as also the worship of the serpent, and there are a number of snake-stones and veeraculls to be found in almost every village. An interesting aboriginal tribe is that of the Meilar, a race who are admitted to have once been the rulers of the country, but who are now very degenerate, and only to be found in the jungles near the ghauts. Their weapons are bows and arrows and spears. The Soppoo Coragar, a jungle tribe prevalent in the Cassergode talook are also deserving of notice. They dress in leaves only, forming a sort of apron from the waist to the thigh; and their language is peculiar. There are number of Jains still residing in the district, and the old Jain temple are amongst the most remarkable objects of interest in the Presidency. Caurcal in the Oodipy talook possesses a well-known Jeina monolithic statute, 42 feet high. Moodbidry in the Mangalore talook, ten miles north-east of Mangalore, has a Jeina temple. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The population of the district has been enumerated from time to time. Before 1871, the returns were made up by the village officers as part of their ordinary duty. An elaborate and complete census of the district, taken in 1871 for the first time and again in 1881, disclosing at the latter enumeration a total population of 959,514 persons, of whom 797,430 were Hindoos, 93,652 Mahomedans, 58,215 Christians and 10,217 "others." A comparison of these figures with earlier estimates shows a steady increase of the Christians as compared with the Mahomedan and Hindoo population. Out of the total male population 62·5 per cent. are workers, of whom 46·9 per cent. live by agriculture and manual labour. The inhabitants of South Canara are of four races—Hindoos, half-caste Portuguese, Arabians, and aborigines. The Hindoos may be divided into two classes—those undoubtedly of Aryan descent, such as the Saraswat Brahmins, and perhaps the Concany Brahmins; and those probably of the Dravidian stock, Shivally, Bunts, Jains, and perhaps Coragar and Holeyar. Of the half-caste Portuguese, Native Christians (originally immigrants from Goa) form a considerable part. The Moplahs, of Arab descent, profess the Mahomedan faith. The aborigines include Malaicoodies, Coragar, and probably the Holeyar, the latter being Pariahs or out-castes. The Malaicoodies are an aboriginal race inhabiting the forests, many of whom have either migrated to the coffee plantations or remain in a state of serfdom to the proprietors. They practise the nomadic system of agriculture, known as coomry. The Hindoos of South Canara are divided into Brahmins, Cshatriyas, Chetties and Shoodras. Of the so-called Brahmins, a very large section are cultivating Brahmins, arbitrarily elevated to that caste, and not acknowledged by the legitimate or Aryan Brahmins. The Jains in 1881 numbered 10,044. Of the Christians, 3,000 belong to the Basel Mission (founded in 1838), and with trifling exceptions the rest (54,660) are Roman Catholics, divided between the Goa and Jesuit Missions. The Christians are not confined to the towns, but mingle with the other castes in every occupation. There are a few followers of the Brahma Samaj in Mangalore. The chief languages spoken are—apart from the European tongues and the Hindostany of foreigners—Tooloo, Malayalam, Canarese, and Concany. Tooloo, the language of Tooloova, is spoken generally between Oodipy and Coombla, by perhaps 180,000 people; south of the Payashwany river, and elsewhere with Moplahs, Malayalam is the prevailing tongue. Canarese, being the official language, is understood everywhere. Concany is the domestic language of some castes, and of all the Goa Christians. The only places with a population exceeding 2,000 are Moolky, Oodipy, Caurcal, Buntwaul and Mangalore. Some towns returned in the census report as containing over 5,000 are mere villages with populous hamlets attached. Mangalore is the most important town in the district, and the only municipality. It has a population of 32,099 persons, and a municipal revenue of Rupees 34,300.

6. *Agriculture.*—In 1800, Major (afterwards Sir Thomas) Munro was appointed Collector of Canara. The exactions of Hyder and Tippoo, though resulting in a large nominal increase of revenue, which was never fully collected, had seriously impoverished the country. In order to place the revenue on a satisfactory footing, Major Munro struck off a portion of the Mysore augmentation, and took the original Bednore assessment with part of the Mysore additions as a basis. His object was to fix a limit to the Government demand which would be within the means of the proprietors to pay. Some estates were then unable to pay even this limited demand, and a temporary abatement was made in such cases, to be withdrawn on cultivation improving. It was laid down as a general rule that the assessment on estates, even on the most productive, ought never to be raised higher than it had been at some former period. During the succeeding seventeen years, the revenue did not improve, and collections were realized with increasing difficulty. It was considered that the Munro settlement pressed heavily in some cases, and it was decided therefore to revise it. The Board of Revenue were of opinion that the best universal standard would be the average collections from each estate during the preceding seventeen years; and the Harris settlement, or 'Tharow' fixed on these principles, has continued to the present day. During the years immediately following the 'Tharow' settlement, the collections did not in any year attain the standard then fixed; and owing to bad crops, low prices and other causes, large annual remissions had to be granted. In 1831, the Collector, Mr. Viveash, permanently reduced the assessment on some over-assessed estates, and made arrangements to bring others up to the Tharow by instalments. Since that time no change has been made, and the district has improved rapidly, the assessment being collected with ease and punctuality. The Viveash arrangement has never been formally sanctioned by the Board of Revenue, so that the permanent reductions ('Board sifarsh') are liable to be cancelled, and the 'Tharow' settlement reimposed on any general revision of the assessment on such estates. The amount of such reductions is, however, small (Rupees 10,030). Lands newly taken up for cultivation are usually assessed with reference to their capability for producing rice, the staple crop of the district. A higher rate is however fixed on lands specially adapted by nature for cocoa-nut or areca-nut gardens. The staple crop of South Canara is rice. Cocoa-nut gardens are numerous along the coast, and areca plantations in the interior. Gram, beans, hemp, raggy, sugar-cane, tobacco, and cotton are grown, but not to any extent. The land is thus classified according to its capacity for irrigation—byle, or rich wet land; majal, or middling wet land; and bettoo, or land watered only by the rainfall. On byle land of the best quality, three rice crops can be raised in the year; on the best majal land, two crops; bettoo land produces only a single crop. The Yeneloo or Carty is the earliest rice crop of the season, on whatever description of land it may be grown. The seed is usually first sown in nurseries, which are highly manured, and the plants are afterwards transplanted. In about two months after transplantation, the crop comes into ear, and in about twenty-one days more is ready for reaping. Experiments have been

made to introduce Carolina rice, but have not been generally attended with success. No statistics of the cultivated area are available. The ruling retail prices of food grains, &c., per garce of 9,600 lb. avoirdupois, in South Canara in 1883-84 were—for best rice, Rupees 400; paddy, Rupees 148; gram Rupees 237; and wheat Rupees 480. The wages of day-labourers have increased since 1850, an ordinary male labourer being now paid Annas 3 and a female Annas 2 a day, instead of Annas 2 and Annas 1½ respectively as in 1850. Smiths and bricklayers, who in that year obtained Annas 4 now get Annas 8 and carpenters now receive Annas 8 who then got Annas 6. The Holeyars, answering to the Pariahs of Madras and the Mhars of Bombay, are a class who live by hire as unskilled labourers. They are paid in paddy or rice; and their wages are subject to deductions on account of debts generally contracted by them to meet the expenses of marriage. For gathering the harvest and storing it up they are not paid at so much per day, but receive one-eleventh of the crop; so also for preparing rice from paddy—they receive 6 lb. of rice for preparing 84 lb. At the time of transplanting and reaping females are largely employed, and are generally paid 4 lb. of rice per day. Before the British rule, the Holeyars were the slaves of the wurgdars (proprietors); and even to this day they remain in a state of modified serfdom. But the coffee estates are drawing large numbers from their original homes, and the labour market is rapidly becoming ruled by the ordinary laws of supply and demand. Almost all land is private property, some unclaimed waste, and lands escheated to Government being the only exception. The whole is divided into estates (wurgs), which include cultivated, cultivable, and waste lands, but only the cultivated portion is assessed. Any new cultivation is assessed at certain fixed rates according to the description of soil. As long as the proprietor pays the assessment, Government does not interfere, and no cultivation accounts are kept, the assessment being fixed on the whole estate and not on each field. Some over-assessed lapsed estates are temporarily granted for cultivation below the standard assessment. Formerly Moolaputtahs (permanent leases) were given for such lands, but the practice has now been discontinued. The tenures between the proprietor (wurgdar) and the tenant (wakkal) are: moolgueny or permanent leases at a fixed rent, generally granted on payment of a premium—in old leases the rent is usually paid in money, in recent leases in kind; Chalgueny, yearly or temporary leases—rent generally paid in kind, sometimes partly in money and partly in kind. The Moolgueny tenure is transferable, and the holder may be regarded as a subordinate proprietor rather than a tenant. The Government assessment on Moolgueny lands is sometimes paid by the proprietor and sometimes by the tenant. That on Chalgueny lands is always paid by the proprietor. All the best rice land in the district is already under cultivation, but there is a considerable extent of waste within the limits of estates suitable for a single crop of rice. Favourable rates are given for bringing such land under cultivation. The Government assessment is paid to the patel or village headman in three instalments, and forwarded monthly to the treasury. The following are the average rates of rent per acre paid by the tenants to their landlords:—

	On Moolgueny.	Chalgueny.
Byle, or 3 crop land	Rs. 20 to Rs. 26	Rs. 16 to Rs. 20
Majal, or 2 crop land ...	Rs. 12 to Rs. 16	Rs. 8 to Rs. 11
Bettoo, or 1 crop land ...	Rs. 8 to Rs. 11	Rs. 4 to Rs. 6
Cocoa-nut and areca-nut gardens	Rs. 30 to Rs. 40	Rs. 20 to Rs. 30

Out of this the proprietor pays the Government assessment. Rents have considerably increased of late years.

7. *Forestry.*—The South Canara forests, which are second to none in the Presidency in interest and value, have been the subject of frequent discussion, inquiry and report during the past five and twenty years. The main question at issue has been how far the proprietary rights of the "Wurgdars" (private proprietors) were inimical to the conservancy of the forest as State property. At one time it was ruled by the local Government that all, or nearly all, the forests in South Canara were private property, or subject to rights which rendered their protection impracticable; but a middle course has finally been adopted, and delibrations are proceeding which will, it is hoped, settle the question of what are and what are not "Lands at the disposal of Government" and facilitate the constitution of reserved forests under the Act. The South Canara forests are very extensive, covering not only the line of ghauts which form the western boundary of the district, but extending everywhere into the plains, in some cases even up to the sea-board, though, as a rule, the demand for firewood and agricultural and building material on the coast has resulted in the clearing of the forest for some miles inland. The ghaut forests contain teak, blackwood, the Terminalias, Hopea parviflora, Artocarpus and a number of inferior species, whilst a noteworthy feature in the plains is the presence of the Vateria indica, which, with the jack (Artocarpus hirsuta and integrifolia) and Kiralbhogy (Hopea parviflora) is found more or less throughout the district. In the northern talook, Coondapore, there are extensive tracts of Acacia catechu, from which the catechu of commerce is obtained. The cashewnut (Anacardium occidentale) is also very common in the coast talooks, and the Alexandrian laurel (Calophyllum inophyllum) has been widely introduced and flourishes. The collection of catechu myrabolams, sheegekye (Acacia concinna) and other minor produce of the forests has recently been organized on a liberal basis, and the revenue from these sources bids fair to become very considerable, whilst production is increased and the collectors or gatherers receive adequate payment for their labour. The planting of teak has been carried on in a somewhat desultory manner at Parapa, but the plantation is now merged in the adjoining forests, which will be one of the State reserves. There are a few acres of casuarina plantations near Mangalore, which it is proposed to extend, the demand and prices obtained being very good. Small tracts of forest in the plains have been notified as reserved forests under section 25. A considerable revenue (at present Rupees 11,000 per annum) is obtained from the supply of firewood to the sandalwood-oil stills, an account of which by the Conservator recently appeared in the Indian Forester. The stills are situated along the foot of the ghauts and manufacture the oil from sandalwood billets and roots, chiefly the latter, the produce of the Mysore forests above ghaut. The District Forest officer's head-quarters are at Mangalore, and there are at present two ranges, the subordinate staff consisting of two rangers, four foresters and twenty-four forest guards. Rules for removal of trees on payment of stump fee and regulating the disposal of timber from "Coomry" lands under section 26, together with rules for the control of timber in transit under section 35, have recently been promulgated. When the selection and settlement of the reserved forests is concluded and a rational system of working them introduced, it is confidently believed that the South Canara forests will take a very high place amongst those of the Presidency, both as regards yield of material and financial results. Of the South Canara timber trees, the best both in quality and quantity are the following:—Bamboo Matty or Banapoo (Terminalia tomentosa), Kiralbhogy (Hopea parviflora), irool (Xylia dolabriformis), marawa (Terminalia paniculata), blackwood (Dalbergia latifolia), jack (Artocarpus integrifolia), wild jack (Artocarpus hirsutus), wild mango (Mangifera indica), poon spar (Calophyllum bracteatum), ebony (Diospyros ebenum), iron-wood (Mesua ferrea), palmyra (Borassus flabelliformis), cedar (Cedrela toon), bengey (Pterocarpus marsupium), ben-teak (Lagerstrœmia, more than one species), and others of the Terminalia, Acacia, Dalbergia, and Dipterocarpus genera.

8. *Commerce and Trade.*—The chief articles of trade are coffee, rice, coir, yarn, betel-nuts, sandalwood-oil, machine-made tiles and bricks, and spices. The exports exceed the imports in value very considerably; but this is no evidence of the balance of trade being in favour of this district, as Mangalore and other Canara ports are chiefly used to export the produce of the countries above the ghauts, while part of the imports find their way through to other disticts, viâ Bangalore. The annual tonnage of shipping is returned at 445,529 and the number of vessels at 8,811. The chief articles of import are piece-goods, cotton, twist, yarn, oils, salt, metals, agricultural implements, salted fish, timber, and European liquors. In 1883-84 the total imports were valued at Rupees 33,91,080 and the exports at Rupees 76,70,812. Of the exports, Rupees 34,30,671 represent coffee, and Rupees 13,94,282 rice; of the imports, the chief item is Rupees 10,10,284 for piece-goods, twist, and yarn. The Basel and the Jesuit Missions are the most notable institutions of the district, the latter mission having recently supplanted the Carmelite Mission. In its mercantile and industrial branches the Basel Mission owns a large shop at Mangalore for the sale of European goods, besides two large tile and brick factories, a weaving shed, a mechanical establishment, and a flourishing printing establishment, all of which give employment to converts. The Jesuit Society have established a magnificent college (capable of accommodating some 500 pupils) and chiefly intended for the education of Catholic Christian youth and managed by European professors. They have also a printing establishment, a girls' school, and a large convent for cloistered nuns.

9. *Medical.*—The district is generally healthy, but fever and bowel-complaints are not uncommon. The rainfall averages about 140 inches per annum. The mean temperature on the sea-board is 84° F. The prevailing epidemic disease is fever. It is most common during the monsoon (June to October), and is probably due to the excessive damp and the malarial poison developed from

decaying vegetation. The agricultural classes, owing to their close proximity to the jungles, are the chief sufferers. In the neighbourhood of the ghauts, jungle fever, enlarged spleens, and debilitated constitutions are more or less common. The only really epidemic disease is small-pox, though in 1876 and 1881 a mild form of cholera, or more probably bowel-complaint, caused several deaths. Small-pox is chiefly prevalent during the months of February and March. It is of a severe type, and attacks the poorer classes. The medicines prescribed by the native practitioners are chiefly decoctions, and ointments prepared from herbs, roots, drugs, and spices. They invariably prescribe three things at the same time:—(1) A decoction or a charm to be taken internally; (2) an ointment to be applied externally; and (3) a conjee or rice-water, with several medicines mixed in it to be taken as a diet. The best-known indigenous medicines of this district are—Cannabis indica, Catechu Ingram Chiretta, Datura alba, galls, and sarsaparilla.

10. *General Administration.*—The revenue of the district from all sources in 1836-37, the first year for which records remain, was Rupees 26,30,120 (including North Canara, since transferred to the Bombay Presidency); and the total expenditure on civil administration, Rupees 6,69,280. In 1850-51, the revenue (still including North Canara) amounted to Rupees 28,56,490, and the expenditure to Rupees 7,56,540. In 1870-71, after the loss of North Canara, the revenue was Rupees 23,37,760, and the expenditure, Rupees 6,77,290. Thirteen years later or in 1883-84 the revenue amounted to Rupees 17,72,723 and the expenditure to Rupees 6,01,575, the large falling off in the receipts being chiefly due to the abolition of the salt monopoly and the introduction of the excise system, under which the bulk of the salt required for consumption or export inland is imported into the district on prepayment of duty either at Bombay or Goa. The principal source of revenue is the land, which yielded Rupees 12,41,749 in 1883-84; stamps yielded Rupees 1,98,837, excise on spirits and drugs, Rupees 1,28,844. The total number of estates upon the rent-roll of the district in 1880-81 was 40,646 held by 49,019 registered proprietors or coparceners; average land revenue paid by each nearly Rupees 30. South Canara is divided into the five talooks of Mangalore, Cassergode, Ooppinanguddy, Oodipy, and Coondapore. There are 851 miles of good road in the district, costing Rupees 60,850 a year to maintain. The principal lines are from Mangalore to the various ghauts which lead into Mysore and Coorg. There are no canals or railroads, and the coast road is not practicable throughout for wheel traffic, but there is excellent sea communication by country craft, and, to other districts, by steamer. The number of magisterial courts in 1883-84 was 17, and of civil and revenue courts, 12. The total police force in 1883 numbered 621 men, being 1 to every 6·28 miles and to every 1,545 of the population. The total cost of this force was Rupees 71,166. It is distributed over 55 stations, and in 1883 made 1,958 arrests. There are 266 Government and inspected schools teaching 9,614 pupils, of whom 1,131 are girls. Education until late years was more backward than in the eastern districts, but great strides in elementary teaching have been made since the local boards were introduced. Good schooling of a high class is obtainable at the Mangalore Provincial College, which teaches 168 boys at an annual cost of Rupees 6,968, and also in St. Aloysius' College (kept up by the Jesuit Fathers) which teaches 225 boys. The new building provides accommodation for 500 scholars. The Postal department costs a little over Rupees 23,200. The annual receipts more than cover the expenditure, being about Rupees 26,800.

CARVETNUGGER.

[*For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I.*]

CENTRAL PROVINCES.

[*For description of these provinces, see the article on Relations with Neighbouring States and Provinces, Chapter I.*]

CEYLON.

[*For description of this colony, see the article on Relations with Neighbouring States and Provinces, Chapter I.*]

CHINGLEPUT.

Description.—This (the name meaning "Brick town") is a district lying between 12° 13′ and 13° 54′ N. lat., and between 79° 35′ and 80° 23′ E. long. Area, 2,842 square miles; population in 1881, 981,381. The Bay of Bengal bounds it on the east; on the north lies Nellore district; on the south, South Arcot; and on the west, North Arcot.

2. *Physical Geography.*—The district generally presents a flat and uninteresting aspect. The land seldom rises to an elevation of more than 300 feet, and in many places near the coast it sinks below the sea-level. Long reaches of blown sand, often separated from the mainland by backwaters, form the chief feature of the coast scenery; while inland, great expanses of flat rice plains interspersed with groves of cocoanut and tamarind trees in which lie the villages of the ryots, and sandy or stony wastes and prairies of poor pasture land, constitute the principal varieties of the landscape. Extensive tank-beds, supporting groves of the palmyra palm, tamarind, and mango, occasionally diversify the scene. Along the north-west corner runs the Naugalpore and Cambaukum range, the highest point of which the Cambaukum Droog, is 2,548 feet, and in parts of Chingleput and Madrantacam talooks the surface undulates, at times even rising into cones and ridges above 500 feet in height; but there are no other elevations deserving the name of hills. The drainage of the country is entirely from west to east, into the shallow alluvial valleys of the Narrainavaram, Corteliaur, Nagary, and Palaur. The soil is for the most part poor, and, where not sandy which is generally the case, is very often either saline or stony. The principal streams are the Palaur, Corteliaur, Narrainavaram, Nagary, Adyar, Cooum and Cheyaur; but none are navigable, being for part of every year either empty sandbeds or trickling rivulets. The numerous backwaters along the coast are connected by canals which run from north to south, and to these is confined all water traffic. The canals are known, as a whole, by the name of the Buckingham Canal. The Ennore backwater and Poolicat Lake are the most important. The latter is a shallow salt water lagoon about 37 miles in extreme length and with a breadth varying from 3 to 11 miles. The greatest depth is about 14 to 16 feet. The coast-line measures 115 miles, and the well-known "Madras surf" beats on it throughout its length. Except Poolicat, there is not a single harbour for even the smallest craft; but, on the other hand, there are only two points of danger along the line—the Poolicat shoal, 14 miles north of Madras, and the reef near Covelong, 25 miles south of Madras. The average depth at Narrainavaram, 400 yards off shore, is over 20 feet, and the bottom is firm throughout. The tide rises and falls 3 feet at the full and new moons. Of mineral wealth, the district possesses little or none; laterite, for building purposes, and the Chingleput felspar and granite, used in ornamental work, representing all its known resources. The principal forests are the growths on the Naugalpore and Cambaukum Hills; Allicooly and Tundaray are other reserves of importance. The flora of the district includes the cocoanut and palmyra palms, the mango, peepul, banian, tamarind, babool, (Acacia Arabica), margosa and coracapillay (Garcinia cambogia). As might be expected in a metropolitan district, closely cultivated and traversed by many roads and canals, as well as by the railway, there is no large game excepting the north-western part of the Cambaukum range where the samber pig and jungle sheep are in considerable numbers and leopards and bears are occasionally found. Alligators, in large numbers, are found in the Caroongauly tank and in no other; and snakes abound. During 1874-75, about Rupees 1,000 were paid in rewards for the destruction of venomous snakes, and for the last two years no expense has been incurred on this account.

3. *History.*—The earliest history of the whole of this district is substantially the same as that of the city of Conjeeveram, which has been given in the notice on North Arcot district. The country was inhabited by Coorumbar, whose rulers belonged to the Pallava family, till the subversion of the latter by the Cholas, probably in the eleventh century. Previous to the Coorumbar other aboriginal tribes inhabited the forests which covered the country. These possibly have their representatives in the Chentsoos,

of whom a large colony are still to be found near Poolicat. The Coorumbar of history were a civilized race, carrying on an extensive foreign commerce with both the East and West. They formed a kingdom called Dravida, which name now survives as the generic title for all South Indian races. Hwen Thsang, who visited Dravida about the year A.D. 640, gives the Coorumbar a good character. He writes as follows. "The kingdom measures 6,000 li in circumference (1,000 miles). The capital called Canchee-puram is five miles round. The soil is fertile, and crops grow abundantly, with quantities of flowers and fruits. The country possesses valuable products. The climate is hot and the inhabitants are brave. They are remarkable for their strong love of faithfulness and justice, and have great esteem for learned men. The language spoken and the character of the writing differ a little from those of Central India. There are a hundred (Booddhist) monasteries with about 10,000 clerics, who follow the school of the Staviras. There are about 80 (Brahmanical) temples. Jains ('les hérétiques nus,' or Nirgrantas) are very numerous." The Coorumbar were frequently assailed by neighbouring chiefs, but were nevertheless prosperous till the Chola finally gained the upper hand. The Cholas lost the country to the Mahomedans in A.D. 1310, but the latter were driven out a few years later again, and then this tract fell under the greatest and last of the Hindoo kingdoms—that of Vijianugger—of which it remained an appanage down to a late date; for though the kingdom of Vijianugger was absolutely overthrown in A.D. 1565, the Chingleput District was held by chiefs who, far into the last century, acknowledged the supremacy of the descendants of the kings of that family. Chingleput is studded throughout with places of historical interest; indeed, there is hardly a village within 30 miles south and west of Madras that is not mentioned by the historians of Southern India. After the overthrow of the Vijianugger dynasty at Talicote in 1564, the Roya kings fell back on Chundragherry and Vellore; and the vicinity of Chingleput to the latter fortress makes it probable that the power of the family extended over the present district. At any rate, when in 1639 the East India Company negotiated for the site of the present city of Madras, it was from Shreerungaroyal that the grant was finally obtained. During the struggle between the British and the French for the mastery of the Carnatic, Chingleput and many other towns in the district were the scene of constant fighting. In 1760, the district, or jagheer, as it was then and long after called, was granted to the Company in perpetuity by the Nawab of Arcot, "for services rendered to him and his father;" and in 1763 this grant was confirmed by the Emperor Shah Alum. From 1763 till 1780, it was leased to the nawab; and during that period was twice ravaged by Hyder Ally, once in 1768, and again in 1780. On the latter occasion, the Mysore chief almost depopulated the district; and what fire and sword had left undone, famine completed. Since that year, the history of the district consists chiefly of a chronicle of territorial arrangements and transfers. In 1784, it was divided into 14 separate farms and rented out. Four years later, it was parcelled out into collectorates, which again, in 1793, were united into one "district." In 1801, the territory about Poolicat (ceded to the Dutch by the nawab) were added to Chingleput. The former was transferred in 1804 to North Arcot, but reunited to this district partly in 1850, when 53 of its villages were incorporated with the Ponnairy talook, and altogether when the remaining 90 were subsequently made over to the Trivellore talook. The "home farms," and some other villages which, till 1798, formed the jurisdiction of the "Recorder's Court," were in that year separated from the Chingleput collectorate, and placed under the officer then called the "Land Customer," but subsequently appointed "Collector of Madras." In 1860, the town of Madras, the sea-customs excepted, was transferred to Chingleput; but in 1870, the former arrangement was reverted to, and the collectorate of Madras remains distinct from that of this district.

4. *Archæology.*—There are a large number of rude stone monuments in the district, the relics of the Coorumbar and of earlier races. A large number of Teloogoo people and Canarese Vellalar from the north entered the district at various times following the Chalookyas, during the Chola-Chalookyan supremacy, and along with the Vijianugger rajahs. They settled in the district and formed colonies, the representatives of which remain to the present day. St. Thomas' Mount and the Little Mount in the Sydapett talook have some antiquarian interest. But Conjeeveram and the Seven Pagodas monopolise attention. For these places see Vol. III. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—Several attempts have been made to enumerate the inhabitants. The first census, taken in 1795-96, when the district was just beginning to recover from the Mysore devastations, gave a total population of 217,372, inhabiting 59,911 houses. The next, in 1850, showed 583,462 souls; in 1859, 603,221, living in 93,310 houses; in 1866, 804,283, in 123,605 dwellings. The regular census of 1871 disclosed a population of 938,184 persons, and divided among 141,434 households, and the Imperial Census of 1881 returned 981,381 inhabitants occupying 142,182 houses. The average density of the population was 345 to the square mile, ranging from 598 in Sydapett to 269 in Chingleput. Classified according to religion, there were 939,314 Hindoos, Veishnavas and Shiveites in about equal proportion; 25,034 Mahomedans, chiefly Soonnees; 16,774 Christians, of whom 81 per cent. were Roman Catholics; "others," 259. Forty per cent. of the Hindoos belonged to the agricultural castes of Vellalar and Vanniar; 6 per cent. were artisans (Kammaular) and weavers (Keikalar); 6 per cent. shepherds (Yidayar); 3 per cent. Brahmin priests; 2 per cent. traders; and 26 per cent. "pariahs," the remainder being fishermen, toddy-drawers, potters, barbers, writers, &c. The Cshatriya or warrior caste was the most weakly represented of all, forming only 0·7 per cent. Wandering tribes, so numerous in other districts, are here represented only by a few Iroolar, a jungle tribe. The Mahomedans, arranged according to tribes, showed 5·48 per cent. Lubbays, 6·83 per cent. Sheikhs, 1·63 per cent. Syeds, ·86 per cent. Pathauns, ·34 per cent. Moghuls, ·12 per cent. Arabs, 33·25 per cent. others and 51·49 per cent. not stated. The males outnumbered the females by 3,871, the males being 492,626 in number and the females 488,755. Regarding the Hindoo castes, it is noteworthy that this is the only Madras district in which the Vellalar are not most numerous. Pariahs are numerically the strongest caste; the Vanniar come next; and after them, the Vellalar. These three castes are extensively influenced by European contact; for, though the great majority engage only in the agricultural and servile labour that tradition assigns them, many of them have pushed to the front, and they now fill one-third of the official posts within the reach of natives. Classified according to occupations, 45 per cent. of the adult males were cultivators; 5 per cent. labourers; 12 per cent. were engaged in industrial pursuits; 3 per cent. in professional work; 2 per cent. followed commercial pursuits; ·6 per cent. were in domestic service, and the remaining 32·4 per cent. were returned as non-working, or of uncertain occupation. Of those in "the professions," it is noteworthy that in this district, which lies near the capital, and is therefore under the influence of the British example of toleration and indifference to caste, there are as many Pariahs as Brahmins. From the same cause, and from the progress of education, orthodox Hindooism shows signs of losing ground, and an advanced Monotheism is making way. There are, however, no Brahma Samaj centres. The chief towns of the district are—Conjeeveram (pop. 37,275); St. Thomas' Mount, a military cantonment (15,013); Sydapett (10,290); Trivettore (9,098); Ootramallore (7,305); Trivellore (6,242), and Chingleput (5,617). Besides these, there are 36 townships with from 2,000 to 5,000 inhabitants, making the total urban population about 200,000, or about 20 per cent. of the whole. The villages, with from 200 to 2,000 inhabitants each, number 1,313. The neighbourhood of the capital naturally exercises great influence on the surplus adult labour of the district, but this is nevertheless essentially agricultural. The people are much attached to their lands, and the literal interpretation given to mirassy rights (vide infra) strengthens this attachment.

6. *Agriculture.*—The land nowhere attains the high fertility of some of the other Madras districts, and is, as a rule, poor. Where the underlying rock does not crop up, the soil is often either impregnated with soda or very sandy. Nor do the cultivators combat this natural poverty. The stubble is never left to enrich the ground, and animal manure, being required for fuel (owing to the absence of forest), is seldom applied to the extent that it should be. The absence of marsh land is a remarkable feature; but wet crops are largely raised under the numerous tanks which dot the district. Agriculture is nevertheless very backward, a fact attributable in part to the number of absentee landowners, who reside in Madras and seldom if ever visit their properties. This leaves the land to be cultivated by rack-rented tenants (poyacarries), checks the investment of capital in the soil, and encourages a slovenly and hand-to-mouth system of agriculture. Perhaps no better indication of the poverty of the actual tillers of the soil can be given, than that the land revenue has been regularly in arrears, and that from 15 to 20 per cent. of the total has had to be collected annually by coercive process. The prevalent tenure is ryotwarry, the cultivator holding direct from Government, with a permanent right of occupancy. Of 742,535 acres of cultivable Government land available for such holdings, 480,936 are thus held under some 73,908 separate deeds. Under this head are included 8,212 "joint" holdings, a whole village being often held by coparceners. The rest of the district, 1,068,539 acres, is either irreclaimable Gov-

ernment waste or private property; about 250,000 acres of the latter are under cultivation, raising the total of productive land in the district to about 730,000 acres. Most of this, though settled in ryotwarry tenure, is subject to certain mirassy or hereditary rights, which take the form of a tax paid by outsiders to the descendants of the original villagers, or their assignees, for the permission to cultivate. Besides the ryotwarry tenure, various other forms of holding obtain, the chief being zemindarry, mittah, shrotriem, manyam, and ijarah, all distinguished by a common system of rack-renting. About 25 per cent. of the villages of the district thus belong to landlords with privileged tenures, and a large proportion of the proprietors are absentees. Their agents too often oppress the tenants, who occupy only "at will," and are frequently in debt to the landlord, his agent, or the village money-lender. The soil is officially classified into four varieties—"permanently improved," regar or "alluvial," "red ferruginous," and "arenaceous," the third being by far the most common. The proportion of "wet" (artifically irrigated) cultivation to "dry" is as 5 : 3. An acre of the former would be assessed at from Rupees 2 to Rupees 7-8, and its yield for each crop may be estimated at about Rupees 32; the net profit to the cultivator, after deducting land revenue, water-rate, cesses, &c., and value of labour, averaging Rupees 15 per acre for each crop. In favourable situations, two crops are obtained in the year. On dry land, the assessment varies from Rupees 4 to Annas 4 per acre; the average amounting to Rupee 1, Annas 10, per acre, and the ryotwarry holdings average 7½ acres. Deducting the land revenue and other expenses, the cultivator's net annual profit averages Rupees 7 per acre, or on his total holding, Rupees 52. The chief wet land crops are rice (of three kinds—shumbah, car, and manacuttay—divided by the cultivators into 31 varieties), sugar-cane, and the betelcreeper. On dry lands the staple crops are cholam, raggy, varagoo, maize, pulses, oil-seeds, chillies, tobacco, cumboo, and groundnuts. The average prices of food-grains for the ten years previous to fasli 1291 (1881-1882) have been as follows:—Paddy—first sort, Rupees 202 per garce of 9,257 lb.; second sort, Rupees 185 per garce; cholam, Rupees 293 per garce; cumboo, Rupees 228 per garce; raggy, Rupees 248 per garce; and horse-gram, Rupees 221 per garce, and the wholesale prices of food-grains in 1882 and 1883 were as follows:—Paddy, first class, Rupees 153 and Rupees 163 respectively, per garce; paddy, second class, Rupees 150 and Rupees 154 respectively, per garce; cholam, Rupees 217 and Rupees 229, respectively, per garce; cumboo, Rupees 185 and Rupees 186 respectively, per garce; raggy, Rupees 172 and Rupees 170 respectively, per garce; and horse-gram, Rupees 217 and Rupees 221 respectively, per garce. Thus the prices of the principal food-grains in this district, were higher in 1883 than in the preceding year; and this increase in the prices of nearly all the grains, notwithstanding that the season was on the whole better in 1883 than the previous year, was attributed to the depletion of the markets owing to the late date at which the rains fell (November) and to the bulk of the produce not coming in until nearly the close of March.

7. *Forestry.*—With the exception of the Naugalpore and Cambaukum Hills in the Trivellore talook, there are no hills of any importance in this district, although in the Chingleput talook there is a large number of low scattered hills. The Naugalpore and Cambaukum Hills rise to an elevation of about 2,500 feet. The last-named are enclosed on three sides by the forest land of Calastry Zemindarry in North Arcot District. On the tops of the hills vegetation is very spare, though the slopes are in some parts fairly well covered. The principal trees that occur are redwood (Cæsalpinia sappan), palla (Mimusops indica), pinnay (Calophyllum inophyllum), Toombay (Shorea thumbuggaia), cadookye (Terminalia chebula). They are, however, but poor specimens, and it is only in the valleys where the soil is richer that the forest growth is denser and finer. The low hills in the neighbourhood of Chingleput are very bare of trees, though there is a considerable amount of scrub vegetation, which, with necessary measures of conservancy, will improve in a very short time. Quantities of small firewood have been taken from these hills for local consumption, and also for the supply of the town of Madras. There is a stretch of low-lying hills also on both sides of the road from Chingleput to Tiroopore, which have a covering of scrub vegetation with a sprinkling of deciduous trees; the same remark applies to the hills near Tiroocalicoondram, the commonest tree is Albizzia amara. But little attention has hitherto been paid to the minor products, and the revenue derivable therefrom has been mainly obtained from dye-barks and soapnuts. Prior to the reorganization of the Forest Department, the Collector had the management of all the forest tracts in his hands, and a system of letting out on contract was generally in vogue. Firewood constituted, of course, the principal source of revenue, and the reckless manner in which it was cut has been the ruin of the jungles. This district has, therefore, now been taken up as a forest division for the first time, and a proper system of working it is now being gradually introduced. There is a considerable area taken up by casuarina plantations and topes. Three blocks aggregating 2,000 acres in Chingleput talook, and about 825 acres in Sydapett and over 50,000 acres in Trivellore talooks have been selected and prepared for reservations under the Forest Act. Arrangements for protecting Cambaukum Hills from fire have also been made. At present a Sub-Assistant Conservator is in charge of the district with head-quarters at Sydapett. He is assisted by three foresters. The forest operations being limited as yet, no division of the district into ranges has as yet taken place.

8. *Commerce and Trade.*—The trade of the small coast towns has long ago been attracted to Madras, and, except at the Presidency city, there is now no commercial activity along the seaboard. Poolicat alone maintained its independence as a trading port until 1864; but in that year its customs house also was removed, and, with the exception of an occasional ship loading salt at Ennore or Covelong, the coast of the district is now deserted. Smugglers have therefore a large field, and periodical alarms of the evasion of customs dues on the Chingleput coast keep the department on the alert. Land trade (except the local interchange of field produce and the necessaries of life) exists only in the unremunerative form of through traffic to the capital; while such industries as the manufacture of spirits for local consumption, and the planting of casuarina groves for fuel (undertaken by European capital), belong rather to the city of Madras than to the district. The salt manufactured for Government gives employment to many thousand families, chiefly mirassidars having hereditary rights to the manufacture; and the annual outturn is valued at Rupees 17,01,739. Weaving occupies about 35,662 persons, but, except the finer muslins of Arnee, and the coloured cloths of Conjeeveram, none of the district manufactures have more than local repute. Metal-ware and indigo complete the list of the non-agricultural industries. The freshwater fisheries yield an annual revenue of about Rupees 2,293; but the sea-fishery, though yielding no revenue, and not under any kind of official control, is a most important industry. The number of large boats employed is 400, and of fishermen, chiefly Roman Catholics, 14,000. An extensive trade is carried on in fresh fish, brought into Madras from 20 miles' distance on men's heads or in baskets slung on a pole, and thence exported by rail to Bangalore and other places. The varieties most prized are the Indian mackerel (Scomber kanagurta), mango fish (Polynemus paradiseus), mullet, seer (Cybium), and pomfret (Stromateus). Turtles from Poolicat and oysters from Sadras and Covelong supply the Madras market. There were, in 1874-75, 578 miles of road in the district, nearly all metalled throughout, and under the superintendence of the Local Funds Board, and 90 miles of coast canal, and, in 1882-83, there were 675 miles of road, with five tolls yielding a revenue of Rupees 31,531. The South Indian Railway cuts the district at two points and runs in two directions—the main line for 42 miles southwards, running from Madras, past St. Thomas' Mount, Pallavaram, Chingleput, and Madrantacam; and the branch line for 21 miles north-west passing through the talooks of Chingleput and Conjeeveram. The Madras Railway also passes for 29 miles of its course through the Trivellore and Sydapett talooks.

9. *Famine, Flood, &c.*—Many years have been marked by great scarcity, arising from various causes; but in five only did the scarcity amount to famine. In 1733, from neglect of irrigation; in 1780, from the ravages of the Mysore troops; in 1787, from drought; in 1785, from extraordinary floods, which destroyed the tanks and water-channels; and in 1806-7, owing to a general failure of the rains throughout the Presidency, the district suffered from famine. In 1867-68, prices rose very high; and during the famine of 1876, the starvation point was nearly reached. When paddy rises to one lb. per anna, and that price is stationary for any length of time, measures of State relief become necessary. The district is peculiarly liable to cyclones, the months of May and October being the usual periods of visitation. Between 1746 and 1846, fifteen disastrous cyclones have been recorded, and 1872 was marked by the occurrence of a most destructive storm of this kind. The cyclones are generated in the Bay of Bengal, and approach the coast of the district (the town of Madras being frequently touched by their centres) from the south-south-east, afterwards assuming a west or west-south-westerly direction. The area within which their action is usually felt extends from 109 miles north to 120 miles south of Madras. They have from the earliest times caused great destruction to shipping, strewing the coasts with wrecks, breaching the tanks, sweeping away villages, and inflicting on the country most disastrous losses in cattle and other

live stock. The rainfall accompanying a cyclone averages 6 inches.

10. *Medical.*—The climate, considering the latitude, may be called temperate, and extremes of heat and cold experienced inland are here unknown. Both monsoons affect the district. The mean temperature for the whole year, day and night, is about 81° F., varying from 63° to 107° F. The annual rainfall averages 46 inches; but no general average can be trusted, as the fall registered varies from 108 inches (in Trivellore in 1872) to 20 inches, the normal fall in some talooks. In 1846, 20 inches of rain fell in as many hours, and the whole district was flooded. In 1883 the rainfall in the district was 45 inches against 34 in 1882. Chingleput is said to be healthy, and the mortuary returns give an annual death-rate of 21 per thousand. But epidemic cholera has been frequent, and, in 1875-76, caused in Conjeeveram alone 106 deaths out of 1,577 cases. Since then, however, there has been little of this disease. Ague is endemic, and small-pox, ophthalmia, and deafness are very common. The sanitation of the district cost Rupees 30,324 in 1883, against 26,593 in 1882; of which Rupees 12,429 were appropriated to hospitals and dispensaries; and Rupees 4,462 to vaccination. The Local Fund Chuttram at Chingleput is situated at the junction of the Conjeeveram branch with the main line of the South Indian Railway and is much used by travellers. The health of the people was on the whole good in 1883. The outbreak of cholera of 1881 ran on into 1882 when it disappeared from the district; and the longprotracted outbreak of fever at Coonatore in Sydapett talook was well met by special medical aid and the fever died out by the end of the year 1882.

11. *General Administration.*—The district is divided for revenue purposes into six talooks, each with its subdivisional native establishment subordinate to the headquarters at Sydapett, the revenue, magisterial and civil jurisdictions being in every case conterminous. The sessions are held at Chingleput, 33 miles from Sydapett, where also the subordinate European staff are stationed. Within the limits of the district, but under independent jurisdiction, lies the Presidency city of Madras. The total revenue of the district was returned in 1883-84 at Rupees 59,35,431 and the total expenditure on civil administration at Rupees 14,21,587. The principal items of receipt were as follows:—Land revenue, Rupees 18,84,203; salt, Rupees 36,55,923; excise on spirits and drugs, Rupees 2,79,862; stamps, Rupees 1,05,622; and income tax, Rupees 9,821. Chief items of expenditure:—Land revenue and excise collection, Rupees 2,57,108; and salt establishments, Rupees 3,36,880. The police force aggregated, in 1881, a total strength of 947 men, maintained at a cost of Rupees 1,51,830, or about 2 annas 8 pies per head of the population. Of this force, nearly one-half were jail and salt guards, the actual number of constables on general duty being 499, or 1 to every $5\frac{2}{3}$ square miles and every 1,967 inhabitants. There are 13 jails in the district, with an average daily population of 160 prisoners, and costing annually Rupees 14,390. Education has recently made marked progress, and female education is spreading; 11 per cent. of the population can now read and write. This district being in close proximity to the Presidency town, the colleges and schools there, for the most part, provide higher education. The Sydapett high school which teaches up to the college entrance examination is the only Government educational institution now within the district; there are besides five other schools which prepare pupils for the Matriculation Examination. There were in 1883, 612 schools on the results grants system with 12,588 pupils, against 580 results grants schools with 11,824 pupils in 1882, and the amount paid in 1883 as results grants was Rupees 19,000 as against Rupees 13,880 in 1882. The total cost to Government of education in the district in 1883 was Rupees 28,685. There are only two Government primary schools for girls; while there are three middle schools and 22 primary girls' schools under private control. There are thus 27 girls' schools in all in the district or one-eighth of the total number of schools in the Presidency with 926 girls or about one-ninth of the school-going girls of the Presidency. Chingleput contains only one municipality, Conjeeveram, and three large military cantonments—St. Thomas' Mount, Pallavaram, and Poonamallee.

COCHIN.

Description.—This is a native state in subsidiary alliance with the British Government, and politically connected with the Presidency of Madras—called after the town of the same name, formerly its capital, but since its capture from the Dutch in 1795, a British possession, and included within the limits of the district of Malabar. That district bounds the State of Cochin on the west, north, and northeast; a small portion at the south-west is washed by the Arabian Sea; and the State of Travancore forms the southern boundary. It lies between 9° 48′ and 10° 50′ N. lat., and between 76° 5′ and 76° 58′ E. long.; and contains 7 sub-divisions—namely, Cochin, Canayanore, Moogoondapooram, Trichoor, Talapully, Chittore, and Cranganore. Total area, 1,361 square miles; population in 1881, 600,278.

2. *Physical Geography.*—The most striking physical feature of the country is the series of shallow lakes or backwaters, which receive the drainage of the numerous streams descending from the Western Ghauts, and are consequently liable to great rises as these feeders swell, and to equally considerable reductions in volume as they dry up. One of these feeders, the Alwye, has been known to rise nearly 16 feet in twenty-four hours; and the backwater into which it flows sometimes continues swollen for months, while, in the dry season, it shrinks in many places to a depth of 2 feet, and even to 6 inches at the northern and southern extremities. The limits of the Cochin backwaters extend from north to south for a distance of about 120 miles, passing considerably beyond the boundary of the State. Their breadth varies from a maximum of 10 miles to not more than a few hundred yards; and they are very irregular in form, branching into a great number of intricate and shallow channels, containing several low alluvial islands. The communication with the sea is at three points—one at the city of Cochin, another at Codangalore or Cranganore, and the third at Chetwye. Though the backwaters are in most places shallow, navigation is at all times possible from Cochin to Cranganore, and from Cochin to Alleppey both for passenger and cargo boats. During the rains, all parts are navigable by flat-bottomed boats; but for the conveyance of petty merchandise, canoes drawing little water are preferred. All the lands washed by the estuary, whether islands or enclosing banks, are low and swampy, and liable to be flooded during the monsoon inundations. They are in general densely covered with luxuriant cocoanut palms; and in such places as are embanked, great quantities of rice are grown. The chief rivers of Cochin are the Ponnany, the Tattamungalam, the Caroovanore, and the Shalacoody. The Alwye or Periyaur also passes through a portion of the State. The timber of Cochin is amongst the most valuable of its products, the revenue derived from the forests in 1882-83 being Rupees 72,833. The principal timber tract is Irooyairy in the north-east, which is covered with dense forests of teak-trees of enormous size, but less durable and elastic than timber of the same kind produced in Travancore and Malabar. It is consequently more in demand for building houses than for ships, for which latter purpose it is also rendered less suitable by being cut into short blocks, in order that it may be dragged to the torrents which sweep it down to the backwater. The violence with which it is carried down the streams often renders it unfit for purposes requiring wood of large dimensions. Other valuable descriptions of timber are poon of which excellent masts are made; and blackwood, anjaly, jack, ben-teak, and bastard cedar. The only mineral products which contribute to the revenue of the State are laterite and granite; for though both gold and iron were at one time worked, these industries have now died out. The flora, however, abounds in plants of commercial value. Besides the timber-trees already mentioned, the hills afford a great variety of drug-, dye-, and gum-yielding shrubs; cardamoms are produced in many parts, and everywhere on the hills the jungle exhibits a splendid luxuriance of foliage and flowers. The fauna includes all the larger animals of Southern India—elephant, bison, bear, tiger, leopard, samber, and ibex, with many varieties of deer. The cheetah, hyæna, wolf, fox, monkey, &c., are also found, and birds are very abundant, as also are snakes and other reptiles.

3. *History.*—The State arose out of the dismemberment of the Malayalam kingdom in the time of Cherma Permaul, from whom, by right of lineal descent, the present Rajahs of Cochin claim to hold their territory. Cherma Permaul governed, as viceroy, the whole country of Kerala or Chera, including Travancore and Malabar, in the ninth century, and afterwards established himself as an independent ruler. Cochin early succumbed to the Portuguese, who, in the sixteenth century, built a fort, and established commercial and missionary relations with the adjoining districts. In 1599, the Archbishop of Goa convened a synod at Oodiyampoora, or Diamper, at which the tenets of the rival Syrian Christians were declared heretical. In 1662, the Dutch took the town of Cochin from the Portuguese, and under their management it soon attained to great prosperity. A century later, the Zamorin of Calicut invaded the State, but was expelled by the Rajah of Travancore, who obtained, as a reward for this service, a portion of Cochin. In 1776, Hyder Ally, the ruler of Mysore, overran the country, compelling it to become tributary; and in 1790, his son,

Tippoo, entered the State, and laid it waste as far as Veerapoly, when he was recalled to the defence of Seringapatam. It remained nominally under the authority of Tippoo until the year 1792, when Mysore passed into the hands of the British. Already, in the preceding year, the Rajah of Cochin had signed an independent treaty with the Company, by which he acknowledged himself its tributary, and agreed to a yearly tribute of Rupees 1,00,000. In 1809, a conspiracy to assassinate the Resident and to commence hostilities against the British, necessitated the employment of troops. After the pacification of the State, another treaty was concluded, binding the rajah to a yearly payment of Rupees 2,70,000, and admitting the right of the Company to control the distribution of its forces in the State, and to demand increased payments in proportion to any increase of military expenditure on behalf of the rajah, it being provided that in no case should his income fall below Rupees 35,000, in addition to one-fifth of the annual revenue. The rajah engaged to hold no correspondence with any foreign State without the knowledge of the British Government, to admit no Europeans into his service, nor allow any to remain within his territory without the consent of the British authorities, who might dismantle or garrison any fortresses in his dominions. On the other hand, the British undertook to defend the territories of the rajah against all enemies whatsoever. Subsequently, in 1819, the annual payment to the British Government was reduced to Rupees 2,40,000, being one-half of the estimated revenue at that time; and at a still later period, the tribute was fixed at Rupees 2,00,000, at which sum it remains at the present day. Since the date of this transfer of power to the British, Cochin has no history beyond that of internal reforms. Several fiscal restrictions were removed in 1836 and 1848; and in 1862 the tobacco monopoly was abolished and a fixed duty levied on importation. By the Interportal Convention of 1865 the inland transit duties were altogether abolished and the freedom of commercial intercourse between this State and the neighbouring districts was completely established by the removal of the frontier customs barriers, thus among other advantages, facilitating the passage of merchandise by backwater from Malabar, Coimbatore and Travancore to Cochin. The customs duties at the sea-ports of Cochin were equalised with those levied at the ports of British India and the selling price of salt assimilated to that obtaining in the district of Malabar; and as compensation for these concessions the Madras Government guaranteed to the State a minimum customs revenue of Rupees 1,00,000 a year and a revenue from tobacco of Rupees 10,500.

4. *Archæology.*—Within the Cochin State the following places have antiquarian interest:—Cochin town, Cacaud, Cranganore, the Nedoompara Tally Temple, Pauraul, Putticaud, Poonilaurava, Tiroocore, Tiroovilvamullay, Trichoova Peroor. Cochin and Cranganore can be referred to in Vol. III. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The first census recorded, that of 1820, returned the total population at 223,003; but the method adopted was defective, and it was not till 1875 that a satisfactory enumeration was accomplished. The total population then disclosed was 601,114 persons inhabiting 120,220 houses; proportion of persons per square mile, 440; number per house, 5. In February 1881 another census was taken simultaneously with that in British India, when the population was returned at 600,278 consisting of 429,324 Hindoos, 136,361 Christians, 33,344 Mahomedans and 1,249 Jews. The Christians, who form about 23 per cent. of the population, belong for the most part to the Romano-Syrian Church, established here in 1659, and subject to the Archbishop of Malabar, or the orthodox Roman Catholic Church under the Archbishop of Goa. The Jacobite and Nestorian Churches, acknowledging the Patriarch of Antioch as their head, and established long before the period of European settlements, number many converts, a few being substantial landowners. The proportion of Christians is 3 per cent. higher than in the adjoining State of Travancore, and 21·5 per cent. more than in the Madras Presidency generally. The Christians are massed in the neighbourhood of the sea-coast backwaters and lagoons, and almost monopolize the boating and fishing industry. Arranged according to local precedence, the Hindoo castes stand as follows:—(1) Brahmins, who form 3·6 per cent. of the population, and are generally priests and proprietors of land; (2) Cshatriyas, also generally landowners; (3) Ambalavausies, temple servitors; (4) Nayars, superior agriculturists and Government servants; (5) Pillays, subordinate Government servants; (6) Wodder, contractors for labour; (7) Vallamar, fishermen, cloth-weavers, potters, and artisans of all kinds; (8) Eezhavar, agricultural labourers; (9) Cheroomar, agricultural serfs; (10) hillmen. Of these, the first four may be described as well-to-do, and the two last as wretchedly poor. The chief hill-tribe is that of the Malayar or Kadar, living on roots, leaves, mice, and small animals, without fixed settlements or ostensible occupation, except occasional basket-weaving. The Vallamar, who live by freshwater fishing, number 4,000, but the sea fisheries are monopolized by the Marakkan caste, who are more numerous. A considerable trade in cured fish is carried on along the coast, emigrants from Ceylon coming over annually to engage in it during the fishing season. Immigration affects the population returns to the extent of about 8,000 annually, the newcomers generally settling in the State. Enumerations of the population have been made five times during the last 55 years, and the result has been to show a great and continuous, though not always uniform, increase in numbers. The highest rate of increase has been obtained during the present administration, which has been marked also by the rapid development of the food resources of the country. Of late years, the increase per annum in Cochin has been 1·86 per cent.—a more rapid rate than in any of the chief European countries. It is estimated that the population would double itself in 39 years. The density of the population is 441 persons per square mile—a number exceeded, however, in Tanjore. The luxuriant growth of the cocoa palm on the sea-shore and backwater is the chief support of this heavy population. Little labour being entailed by this cultivation, abundant opportunity exists for further earnings. Nearly the whole produce of the country consists of special articles for export; the collection of which at the port of Cochin, by the endless network of canals, affords ample employment to boatmen, imported rice being distributed in the shape of return cargo. The fact that a sufficient fish diet is available at an almost nominal cost has an important bearing upon the material condition of the people. The most populous towns are—Ernacolum, the capital with 13,703 inhabitants; Cochin, 13,276; Trichoor, 11,638; and Tripoonatora, the residency of the rajah, 7,023. Seven other towns have over 5,000 inhabitants, and 43 others between 2,000 and 4,000, making the urban population 224,400, or 37·5 per cent. of the total. Smaller villages number 577, the average population being about 651. The tendency to gather into towns has become marked of late years, while the proportion of tiled houses annually increases.

6. *Agriculture.*—Rice forms the staple of cultivation, some fifty varieties being locally distinguished; the best land supports three crops annually. Next to rice, cocoa-nut engages the attention of the cultivators. Wherever a sufficiently light soil prevails, this tree is grown; and its products—coir, oil, coppray, and the nuts—form the chief exports of the State. Other crops are,—besides the usual cereals, pulses, and vegetables,—cotton, coffee, indigo, betel-leaf and areca-nuts, hemp, flax, sugar-cane, ginger, and pepper. This list illustrates the very diversified and fertile nature of the soil. Irrigation obtains only on a small scale, the natural rainfall usually sufficing for the crops. Manure, where necessary, consists chiefly of vegetable refuse, leaves, bark, &c., and the ashes of burnt wood. Of the total area of the State (871,040 acres), more than one-third, or 377,308 acres, is under cultivation, divided among 66,250 separate registered proprietors; the assessment ranging from Rupees 3 an acre downwards. The yield of an acre of superior rice land averages in value Rupees 71 Annas 8; that of inferior land, Rupees 40. The majority of cultivators do not hold more than 5 acres, from which they obtain the equivalent of about Rupees 8 a month. Most of them cultivate their own land, and tenants-at-will are rare. Rent was, till the present century, paid in kind; but, after several tentative standards, it has now been roughly commuted at about one-fourth of the value of the produce. Beyond this, no regular conversion of rents into cash has been introduced, nor do any of the revenue regulations of British districts obtain here. The proprietary right in the soil rests either in the Government or private persons. In the former case, the tenants occupy for the most part on, nominally, simple lease, held direct from Government, but about one-fifth of the whole is in reality mortgaged to the tenants. Only two kinds of land are fiscally recognised—"rice land" and "garden land," the former being assessed by the acreage under crops, and the latter by the number of trees upon it. Cocoa-nut palms, jack-fruit trees, and palmyras pay the highest rates, which range from Annas 14 Pies 8 per tree down to Anna 1 Pies 4. Where no trees exist, the crop is assessed at about Annas 9 Pies 4 per acre. Various imposts supplement the Karam or land-tax proper,—the chief being Kettatenga, levied upon every 100 trees, after each has been taxed individually; nigidy, a royalty collected by the State on the rents of private lands; and mepoora, taken from all holdings above a certain size. Wages have doubled in every branch of labour during the last 20 years, and now average for a carpenter or bricklayer Annas 4 Pies 8 per diem, for a smith Annas 6 Pies 8 and for a day-labourer Annas 3 Pies 4. Prices of food have increased in even greater proportion; rice, which in 1851 was at Rupee 1 Annas 8 per maund (or Rupee 1 Pies 8 per cwt.), cost in

1871, Rupees 3 Annas 4 (or Rupees 4 Annas 6 Pies 8 per cwt.). The price of all other grains has risen proportionately. This rise, however, does not much affect the poorest class of day-labourers, for they receive the bulk of their wages in kind, at the old rates of about 4 lb. of grain per diem for an adult, 3 lb. for a woman, and 2 lb. for a child, the rate of commutation being generally fixed at Annas 3 Pies 4, Annas 2, and Anna 1 Pies 4 per diem for each. Among the urban population an increasing prosperity is, it is said, becoming yearly marked by the improved class of dwellings erected, and the more general distribution of luxuries. The monthly expenses for a household of the average shopkeeper class would be Rupees 40, those of an average peasant, Rupees 15.

7. *Commerce and Trade.*—In spite of its favourable configuration for commerce, and its great natural resources, Cochin possesses no important trade by sea or land. Except in the coffee cultivation on the Neliamputty range, European capital has not yet been attracted to the State. In the Cochin and Canayanore talooks, ornamental work in metals, and carving in wood and ivory, are carried to a point of great excellence; and the hardware and arms here manufactured command a sale beyond the limits of the State. The timber produced in the forests, and the salt imported from Bombay through contractors, are Government monopolies, and yield large revenues. The old tobacco monopoly was abolished in 1862, as elsewhere explained. Among local products, the cocoa-nut palm yields in its nut and fibre an article of export; but the others—areca-nut, ginger, oil-seeds, pepper, &c.—are only locally interchanged. The Madras Railway touches the State at Shoranore (where there is a station); and the traffic returns for the first half of 1876 showed a total of 11,052 passengers and 179 tons of goods. The principal exports, besides rice and the products of the cocoa-nut already mentioned, are pepper, cardamoms, and timber. In consequence of the great extent and facility of water-carriage, and of the impediments presented by torrents, backwaters, and inlets of the sea, the construction of roads has, until recently, been little regarded; but there are now 277 miles of good road in the State. The longest and most important line runs nearly parallel to the seashore, and on an average about a mile from it. This forms the principal military and official route between Travancore and Malabar. Its continuity, however, is frequently broken by the water-channels which cross it. In the less swampy parts about Trichoor, there are some excellent portions of road, for making which the prevailing formation of laterite is well suited. The Cochin Government have always readily assumed their share in works common to the State and to British territory, such as the protective works at Cruz Milagre (where an opening of the backwater into the sea, threatened by diminishing the scour over the Cochin bar to impair the value of the harbour); and the improvement of the West Coast Canal for a length of 30 miles where it forms the boundary of the State. Again, when a cart-road was projected to connect Ponnany with the southern end of the Shoranore bridge, and thus with the railway without the necessity of fording the river, the Cochin Government readily undertook the cost of the length lying within the State. There is now water communication (canals and backwater) for 45 miles between Cochin and Trichoor, and smaller canals branch from this line along its length. Throughout this water system considerable traffic is carried on for nine months of the year, for the remaining three (the hot months) the communication is often interrupted.

8. *Famine, Flood, &c.*—The State of Cochin is not subject to famine, the ample means of communication which it possesses placing it beyond the likelihood of such a visitation. Nor are destructive floods or droughts known. A local inundation or deficiency of rainfall may at times have caused temporary loss, but there is no case on record of an entire harvest having been destroyed.

9. *Medical.*—The climate, though very damp, is not found particularly unhealthy. The average annual rainfall is 107·66 inches, of which 82·10 inches fall during the monsoon, which lasts through the months of May, June, July, and August. The mean annual temperature is 79·7° F., and is very uniform throughout the year, only varying from a monthly average of 77·7° F. in January to 83·4° F. in April, which is the dry season. Even during the latter, though called dry, the air is moist, and frequent showers of rain reduce the temperature, so that a continued drought is unknown. Among endemic diseases, elephantiasis, leprosy, and skin diseases are specially frequent, and malarious fevers prevail all the year round. The elephantiasis is attributed to the impure water used along the coast, where it is most prevalent. Small-pox was annually epidemic from 1865 to 1868; and in 1873, an outbreak of special virulence occurred, 30 per cent. of the cases proving fatal. Cholera appeared in 1865, and again in 1875-76, causing, however, no great loss of life. Native practice is chiefly guided by two Sanskrit works, the Ashtangarhidayam and the Chintamany, the mode of treatment being remarkable only for the extensive use of medicated oils.

10. *General Administration.*—The State is divided for administrative purposes into seven talooks or subdivisions—Cochin, Canayanore, Moogoondapooram, Trichoor, Talapully, Chittore and Cranganore; each supervised by a tahsildar, the local head of the revenue, and magisterial administration, assisted by a subordinate native staff. In matters of revenue, the tahsildars are under the direct control of the diwan, or responsible adviser of the rajah; while in matters of criminal justice, they are subject to two diwan-peshcars, who are magistrates with full powers. Civil law is locally administered by five moonsifs having jurisdictions in suits to the value of Rupees 500 and by two zillah courts. The Court of Appeal, the highest tribunal of the State, has unlimited powers, both civil and criminal, subject only in sentences of death and imprisonment for life to the confirmation of the rajah. A police force has been organised on the model of that existing in the Madras Presidency but as yet it has taken charge of only three out of the seven talooks. The force at present numbers 256 men, and the total cost in 1882-83 was Rupees 26,498. During that year the police made 1,856 arrests, obtaining 615 convictions and 104 persons were committed to the Criminal Courts. The cases of the other accused were discharged or compromised or terminated in acquittal. There is no village watch such as obtains in the neighbouring British districts. The number of prisoners in jail during 1882-83 averaged 149; average cost per head, Rupees 81 Annas 7. The administrative head-quarters of Cochin are at Ernacolum; but the rajah resides at Tripoonatora, 5 miles distant. The Penal Code of British India has been partially introduced into the State, and also a Registration Act modelled upon our Act VIII of 1871. The total revenue for 1882-83 stood at Rupees 15,77,601; the total expenditure at Rupees 14,24,309. In 1809-10, the revenue was only Rupees 5,89,160; and the expenditure, Rupees 5,03,700. The chief items of income (1882-83) were—land revenue, Rupees 6,39,312; customs, Rupees 1,10,112; salt, Rupees 2,73,808, and excise on spirits and drugs, Rupees 87,144: principal items of expenditure—subsidy to British Government, Rupees 2,00,000; the rajah's establishment, Rupees 2,26,635, administration (judicial, revenue, and police), Rupees 2,41,127; religious and charitable endowments, Rupees 1,18,082; public works, Rupees 3,07,997. In 1874-75, the revenue of the State was Rupees 12,51,820, and the expenditure, Rupees 11,75,590. In 1862, the tobacco monopoly was abolished, a fixed duty being levied on importation, the Madras Government guaranteeing the State a minimum customs revenue from this head of Rupees 10,500 per annum. Education costs the State Rupees 19,270 annually, the chief institution being the High school at Ernacolum, with an average daily attendance of 330 pupils. Five Anglo-vernacular, one Hebrew-Sanscrit, and seven Malayalam schools receive grants-in-aid from Government, as also do numerous primary schools for boys. Female education has not as yet engaged State attention. Of the total population of 601,114, the census (1875) disclosed 26,621 as being able to read and write; of these, 1,133 were women. The postal department resembles that of British India, and carried during 1882-83 about 24,167 letters, 3,751 newspapers, 11 books and 80 parcels exclusive of all covers on public service. There are no municipalities. In regard to jurisdiction over European British subjects, the rajah, with the approval of the Madras Government, appoints two or three gentlemen—being European British subjects and Christians—to exercise the same jurisdiction as may be exercised in British territory by European British subjects who are magistrates of the first class and justices of the peace. From the sentences of these magistrates there is an appeal to the European Judge of the Rajah's chief court; and in both original and appeal cases it is open to the British Resident to advise the Cochin Government to mitigate or remit the sentence. The gentlemen, selected as above by the rajah, are further appointed by the Governor-General in Council to be Justices of the Peace, with a view to their remitting serious cases either to the Resident, who under the authority of the Government of India has the powers 'ad hoc' of a session judge, or to the High Court of Madras, in accordance with the rules prescribed by section 75 of the Code of Criminal Procedure. The Rajahs of Cochin are of pure Cshatriya caste, and claim to be descended from the last of the potentates who held supreme authority over the whole extent of territory stretching from Gocarna in North Canara to Cape Comorin. The present Rajah, Rama Vurmah, was born in 1835, and succeeded to the throne in 1864. He was created Knight Commander of the Star of India in 1871, and is entitled to a salute of 17 guns. The military force consists of 318 men and 4 guns. Public libraries, aided by State grants, have been established at Ernacolum and Trichoor; and the numerous missions represented in Cochin support printing-presses, private schools and societies for the advancement of knowledge. The Catholic mission has a large number of

educational institutions. The Official Gazette of Cochin is the only periodical publication. Charitable endowments, providing for the maintenance of Brahmin travellers, are attached to all the pagodas; and the State also grants aid to many establishments, for the support of the local Brahmin population. The total expenditure on religious and charitable endowments amounts to Rupees 1,18,082 per annum. Religious gatherings are held annually at all the chief pagodas; the attendance at the most important—that held at Cranganore, and lasting for ten days—averages 12,000 per diem. At all these gatherings a large interchange of local produce is effected.

COIMBATORE.

Description.—This district lies between 10° 14′ and 12° 19′ N. lat., and 76° 35′ and 78° 14′ E. long.; area, 7,842 square miles; population in 1881, 1,657,690. It is bounded on the north by the State of Mysore; on the east by Salem and Trichinopoly districts; on the west by the Neilgherries, Malabar, and the State of Cochin; and on the south by Madura and the State of Travancore.

2. *Physical Geography.*—The northern portion of the district consists of an elevated tableland, divided from the Mysore plateau (of which it really forms a continuation) by the Biligherryrungamullay and other hill ranges. It has a northerly slope, and presents throughout an undulating surface, with an average elevation of 2,500 feet above the rest of the district. The Biligherryrungam Hills form a double range, with ridges 5,000 feet in height, enclosing a valley 4,000 feet above the sea, filled with heavy forest and high grass, a favourite resort of wild elephants. Two passes, the Hassanore and Burgoor ghauts, lead thence into the "low country." This is a plain, slightly undulating, with an easterly slope from the town of Coimbatore (1,350 feet above the sea) to Caroor (only 500 feet). All the rivers, therefore, flow eastward to join the Cauvery, except in the Pollachy talook, which is situated on the western slope of the watershed. On the western confines of the district lie the Neilgherry Hills, the most conspicuous point being Lambton's Peak, a narrow ridge 5,000 feet in height; while on the southern frontier lie the Anamullays. Along the northern boundary flows the Cauvery, the chief river of Coimbatore, which receives in this district the waters of the Bhawany, Noyil, and Amravatty. Being confined within rocky banks, and having a fall of 1,000 feet in 120 miles, the Cauvery is very rapid. An area of 3,000 square miles is covered with forests, which afford a large supply of valuable timber—teak, rosewood, sandalwood, &c. Waste pasture lands constitute a large portion of the Collegaul talook; and hither immense herds of cattle are yearly driven from the neighbouring district of Salem to graze. The Lumbaudies and Brinjarries here breed their pack-bullocks. The chief mineral products of the district are iron and limestone; the latter, found everywhere in the nodular form of kankar, exists near the town of Coimbatore in a crystalline form, which is quarried for building purposes. In a district so abundantly supplied with forest, waste land, and hills, it is natural that the fauna should be very numerous. Nearly all the larger animals of India are found here—elephant, bison, bear, tiger, panther, ibex, antelope, deer of several species, hyæna, boar, wolf, &c.; as also the representative birds of every order. In the rivers, the mahseer fish is common, running to a great size. Reptiles abound, and about 50 deaths from snake-bite are reported annually. The yearly expenditure in rewards for the destruction of dangerous animals averages Rupees 1,500.

3. *History.*—The district of Coimbatore formed part of the kingdom of Chera, in the great Dravida division of the peninsula. Its ancient name appears to have been Conga or Caungyam, which still survives in the town of this name in the Dharapooram talook. The early kingdom of Chera corresponded roughly with the present districts of Coimbatore and "Salem below-ghauts," and had for its capital a city near the site of the present Caroor. About the ninth century, the Chera country was conquered by the Chola dynasty; and two centuries later, both together were merged, with the Pandya dominions, into one kingdom. The eastern portion of Coimbatore passed nominally into the hands of the Madura Naicks in the sixteenth century; and in the seventeenth commenced the series of Mysore incursions which terminated in the eighteenth century in the incorporation of the district with Mysore. In 1653, the first invaders, descending by the Guzzehutty Pass, ravaged the rich plains of Suttimungalam, and penetrated across the district into Madura. Thence they were driven back by the generals of Trimal Naick through the passes into Mysore. Fourteen years later, they returned, capturing Erode and Dharapooram, and virtually subduing the district. During the wars of Hyder Ally and his son Tippoo Sultan, Coimbatore divided with the Baramahaul and Trichinopoly the distinction of being the scene of the hardest fighting; and when Hyder rose in the service of the Mysore Rajah, and exacted concessions of land for himself, Coimbatore was the first tract assigned to him. He lost it by the temporary reverses of 1760-61, but immediately employed his recovered strength to regain possession. In 1768, the British troops occupied the district; but Hyder soon rallied, recaptured it, and carried into captivity all the weak garrisons that had been left scattered over the country. In 1783, when Tippoo was besieging Mangalore, a diversion was made by a British contingent into Coimbatore; and Caroor, Aravacoorchy, and Dharapooram were taken in succession. The fort of Coimbatore next fell; but the treaty of Mangalore, signed immediately afterwards, restored the district to Mysore. During the second war with Tippoo, in 1790, a British force again advanced upon the district; and though it was overrun, Tippoo, descending in strength, soon reoccupied all the forts. A severe battle fought near Dharapooram left him, though not victorious, in virtual possession. In the following year, while Lord Cornwallis was invading Mysore, Tippoo laid siege to the town of Coimbatore; and though it was gallantly defended for five months (by Lieutenants Chalmers and Nash), the garrison were at length obliged to capitulate, and were carried prisoners to Seringapatam. The treaty of 1792, signed soon afterwards, ceded Coimbatore and the greater portion of the district to the English; and in 1799, on the capture of Seringapatam and death of Tippoo, the whole passed under the direct administration of the Company. The southern part of the district was then added to the Dindigul collectorate, and the remainder, with part of Salem district, erected into a separate charge. A rough survey was carried out; and on the lines then laid down, the administration of the district has ever since peaceably progressed.

4. *Archæology.*—Rude stone monuments abound in the district, especially to the west and north, or on the slopes of the more mountainous tracts. The Moyaur valley is specially remarkable for them. Veeraculls are numerous. It appears that there was at one time a very considerable commerce between the inhabitants of this district and the Romans, for there have been numerous discoveries of Roman coins. This may have been due in great measure to the beryl mine at Padiyoor in the Dharapooram talook; for the Romans set great store by the beryl, and Pliny declares that all the best beryls came from India. Padiyoor is said to be the only locality in India where the beryl is found. It is probable that the Carei of Ptolemy were the Chera inhabitants of this district with capital at Caroor, Ptolemy's Carura. Jeinism was at one time very prevalent; but as yet, with one doubtful exception, no trace has been found of Booddhism. Coimbatore has suffered severely from being the fighting-ground of races and families of rulers in all ages. There are a large number of ruined forts, and relics of battles, in the district. Amongst places of archæological interest must be especially mentioned Shivasamoodram in the Collegaul talook, Peroor near Coimbatore, and Caroor; for which see Vol. III. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The census of 1881 disclosed a total population of 1,657,690 persons, inhabiting 7,842 square miles and 390,275 houses (4·2 persons per house and 211 per square mile), 806,859 males and 850,831 females. Hindoos, 1,606,343, or 97 per cent. of the whole; Mahomedans, 37,855; Christians, 13,326; Jains, 68; Booddhists, 63; and "others," 35. Classified according to forms of worship, 75·2 per cent. of the Hindoos were Shiveites, 22·5 per cent. Veishnavas, and 2·3 per cent. others. Of the Mahomedans, 82 per cent. were Soonnees, and 3 per cent. Shiahs and (except 1 Wahauby and 8 Farasies) the religion of the rest is unknown; 87 per cent. of the Christians were Roman Catholics. The Jesuit mission here has lately been erected into a separate Vicariate Apostolic, with jurisdiction over the Neilgherries and parts of Malabar and Cochin. The London, Leipzig, Lutheran, and Evangelical missions have all settlements here. Classified according to caste 42·98 per cent. of the Hindoos were cultivators (Vellalar), 13·46 per cent. Pariahs, 6·69 per cent. day-labourers (Vanniar), and 5·08 per cent. weavers (Keikalars). The toddy-drawers (Shaunar), traders (Chetties), shepherds (Yidayar), artisans (Kammaular), Brahmins, washermen (Vannar), potters (Coosavar), fishermen (Shembadavar), barbers (Ambattar), warriors (Cshatriyas), and writers (Kanakar) followed in the above order. The hill and jungle tribes are the Malasar, Iroolar, Pulliar, Kadar, and Maravar, found chiefly on the Anamullays, subsisting precariously on wild fruits and roots, by the chase, or the sale of jungle produce. There are no pastoral tribes. The Mahomedans were divided, according to sect, into 12 per cent. Lubbays, 5 per

cent. Sheikhs, 5 per cent. Pathauns, 17 per cent. Syeds. The Moplahs, Moghuls and others are 61 per cent. Classified according to occupation, 44·1 per cent. of the adult male population were agriculturists, 2·4 day-labourers, 16·9 engaged in industries, 1·2 in trade, ·7 per cent. in domestic service, and 2·1 professional, leaving 32·6 as unclassified. Of the total population, 4 per cent. were returned as able to read and write. The language of the northern portion of the district is Canarese, that of the remainder Tamul; but in many villages a corrupt Teloogoo prevails, bearing witness to the northern origin of the inhabitants. The chief towns are—Coimbatore (pop. 38,967), Erode (9,864), Caroor (9,205), Collegaul (8,462), Dharapooram (7,310), Pullaputty (6,351), Bhawany (5,930), Pollachy (5,082), Oodamalpett (5,061), and Suttimungalam (3,210), five others have over 7,000, 2 over 6,000, 8 over 5,000, while 193 have more than 2,000 inhabitants, making the total urban population about 600,000, or 36 per cent. The remainder are chiefly agriculturists of the Vellalar caste, and day labourers—all poor, living in mud-walled huts, and subsisting on cholam, raggy and cumboo, the staple food grains of the district. Rice is eaten only by the well-to-do. The expenses of an ordinary shopkeeper, with a household of five persons, have been estimated at about Rupees 30 per month, and of a cultivator's family at about one-half.

6. *Agriculture.*—Of the total area of the district (4,193,295 acres), over one-half, or 2,249,845 acres, is under cultivation; and of the remainder, 1,287,505 are cultivable, though not under the plough. The staple crops of the district, cholam (Sorghum vulgare) and cumboo (Holcus spicata), occupy between them 57·22 per cent. of the cultivated area; raggy (Eleusine coracana), 9·36 per cent. gram (Dolichos biflorus), 6·63; and rice, 3·29 per cent. Rice requires heavy irrigation, and its cultivation is not increasing. Other crops are doll (Cajanus Indicus), oolandoo (Phaseolus mungo), cotton, hemp, tobacco, and sugar-cane. The plantain, cocoa-nut, areca-nut, and betel-leaf are also extensively cultivated. There are two seasons for sowing—May and October, and two harvests in September and February. Rice land pays from Rupees 2 Annas 8 to Rupees 18 in land revenue per acre, and produces a crop ranging in value, according to the quality of the soil, from Rupees 12 to Rupees 47. Most land also yields a second crop, valued at about half the first. The majority of the holdings are very small; the number of registered proprietors or coparceners being 353,623, and the average of their annual revenue liabilities about Rupees 8. A holding paying Rupees 500 a year to Government is considered an exceptionally large one, and one paying Rupees 100 a comfortable estate. The holder of an estate paying less than Rupees 20 would be considered poor. With a single pair of oxen, 5 acres can be cultivated; the necessary implements and oxen would cost about Rupees 50; and if the plot were garden land, the cultivator would be about as well off as a retail shopkeeper, making Rupees 8 a month. Most of the cultivators have occupancy rights; but many villages are held zemindarry, as one estate, the proprietor paying a fixed yearly revenue (peshcush) to Government, and recouping himself from his tenants. Other villages and plots, again, are held as jagheer, shrotriem, or inam, rent free, and on specially advantageous terms, in reward for services rendered, or for the support of religious and charitable endowments. Under the Mysore rule, the district was farmed by a few wealthy individuals, who made themselves responsible for the revenue; but in 1800, when the company assumed the administration, the present system of direct settlement with the cultivators was introduced. The assessment is that fixed by the Settlement Department in the years 1878-79—1881-82, and may be estimated at one-half of the net produce on irrigated, and one-third on unirrigated land. Waste lands, overgrown with cactus, the scourge of part of the district, are leased rent free, for terms not exceeding ten years, to any who will rid them of the pest, and bring them under cultivation. The principle of rotation of crops appears to be thoroughly understood, and the advantages of manure are also appreciated. Agricultural day-labourers or coolies earn Annas 3 per diem; women, Annas 2; and children, Anna 1. Blacksmiths, bricklayers, and carpenters receive from Annas 6 to Annas 14 per diem. Since 1850, the rates of wages for skilled labour have risen from 25 to 80 per cent., and prices of food have doubled. Rice, which in 1850 was selling at Rupee 1 Annas 8 per maund (80 lb.), now sells at Rupees 3; cholam, formerly Annas 10 Pies 8 per maund, now costs Rupee 1 and Annas 6; wheat, once Rupee 1 Annas 8 per maund, now sells at Rupees 3 Annas 4; salt has risen from Rupees 2 Anna 1 Pies 8 to Rupees 2 Annas 15 Pies 3 per maund, and country liquor (arrack) now sells from Rupees 3-4-0 to Rupees 4-4-0 per gallon.

7. *Forestry.*—There are two forest divisions in the Coimbatore district known as north and south, each under a separate District Forest officer. (*a*) The chief forests in the North Coimbatore division are situated in the upper plateau of the Suttimungalam, Bhawany and Collegaul talooks. The most valuable trees are the sandal (Santalum album), achah (Hardwickia binata), vengay (Pterocarpus marsupium), and satinwood (Chloroxylon Swietenia). The sandal occurs in patches, and is most frequent in the neighbourhood of villages or cultivation. The quantity sold during the past ten years, i.e., since the forests were made a separate charge, aggregates 597 tons, which realized Rupees 1,91,629. The supply of ripe trees is nearly exhausted, and the revenue for the last few years has been chiefly derived from the sale of roots, which are in demand for the manufacture of sandalwood oil. Four small tracts have been constituted reserved forests under section 25 of the Act, mainly on account of the prevalence of this valuable tree; but it is proposed to increase the area of reserved forest largely throughout the division, and two blocks are now under settlement under section 4 of the Act. The achah is chiefly found along the banks of the Cauvery and streams leading into it in the Collegaul and Bhawany talooks. The country is very broken and badly roaded, and the forests have so far not been worked, though it has been frequently under consideration to do so through the Salem district. The vengay and satinwood are found scattered throughout the forests along with Anogeissus latifolia, the Terminalias, Premna tomentosa, Acacia leucophlœa, Albizzia odoratissima, Kydia calycina, &c. The chief demand for timber and firewood is from the villages below ghaut, where the plains have been almost entirely cleared of forest growth. Attempts were at one time made to supply firewood to the Railway Companies at Erode, but they did not prove a financial success, though large sums were spent in repairing the anicut and making a channel at Nerinjipett. There are large quantities of minor forest produce, e.g., tamarind, myrabolams, avaray (Cassia auriculata), and velvail, (Acacia leucophlœa) bark from which a considerable revenue is derived. At present they are worked chiefly on the contract system, but as reserved forests are constituted, the collection and disposal will be taken more into the hands of the departmental officers and the resources and revenue be developed. Grazing is at present unrestricted and free, but it is proposed to regulate it and charge moderate grazing fees. The selection and demarcation of areas to be constituted reserved forests and fuel and fodder reserves are in active progress, and as the area above ghaut is very thinly populated, it is believed that extensive and valuable compact blocks can be reserved without trenching unduly on the extent required for cultivation. Fire protection has so far been restricted to the four small sandalwood reserves. The division includes five talooks, viz., Collegaul, Suttimungalam, Bhawany, Erode and Caroor. The head-quarters of the District Forest officer are at Coimbatore, and there are at present three ranges corresponding with three forest talooks—Collegaul, Suttimungalam and Bhawany—the head-quarters of the range offices being at the cusbah towns. The sanctioned strength and distribution of foresters and forest guards is as follows:—1 forester at Jalamullay, Suttimungalam range, 1 forester at Bylore, Collegaul range, 1 forester at Bhawany range, 7 guards at Collegaul, 6 guards at Bhawany, 8 guards at Suttimungalam. (*b*) The South Coimbatore division which comprises the four talooks of Coimbatore, Pulladam, Oodamalpett and Pollachy is at present under the charge of a Second-grade Assistant Conservator. It is divided into eight separate and independent ranges; the range officers, four of whom are rangers and four foresters, correspond directly with the District Forest officers. The range charges are as follows:—

	Head-quarters.
Bolamputty and Jadagam	Alandoray.
Sholakaray	Cundigownden. Sholah.
Mettapolliem	Mettapolliem.
Pulladam	Pulladam.
Oodamalpett	Poonachy.
Poonachy reserve	Toonacadavoo.
Toonacadavoo	Dhally.
Pollachy permit range	Anamullay.

The principal forest tracts are situated on the hills surrounding the Bolamputty, Jadagam, and Bhawany valleys and on the Anamullay. Sholahs or evergreen forests, similar to those on the Neilgherries and Pulneys are found on the higher ranges of the Anamullays and on the higher hills surrounding the Bolamputty and Jadagam valleys. The deciduous forests contain such valuable timber trees as teak (Tectona grandis), blackwood (Dalbergia latifolia), vengay (Pterocarpus marsupium), vellaynaga, (Anogeissus latifolia), irool (Xylia dolabriformis), karoomaroothoo (Terminalia tomentosa). The revenue is derived from sale of timber worked departmentally; from fire-wood and timber, &c., removed by

consumers on the payment of a fixed seigniorage to Government; from minor forest produce; and from produce of topes. During the last few years no departmental operations have been undertaken in this division as the supply of timber in depôt was more than sufficient to meet the demand. The timber in depôt is now coming to an end, and it has been decided to begin felling operations in the Anamullays. In former years large quantities of teak, blackwood, and vengay were felled in the Anamullays. The timber was felled by axemen from Palghaut, then dragged by elephants to the slip, whence it was slipped down to a depôt below the ghauts. The Bombay marine obtained the greater part of its timber from the Anamullay forests. The wood being carted from the Adivaram and Tekkady depôts to Mangaray it was there floated down the river to Ponnany and thence taken in ships to Bombay. The Public Works Department, Madras Gun Carriage Manufactory and Madras Railway Company have also purchased large quantities of Anamullay timber. The forests situated on the hills at the western end of the Bolamputty valley were formerly worked departmentally for the valuable teak, blackwood, and vengay which they contained. Here, as well as in the more accessible parts of the Anamullay, the capability of the forests has been greatly exceeded; and huge stumps, stunted trees, and, in some cases, a scrub jungle are all that is left of what once formed part of one of the most valuable forest tracts in Southern India. Careful conservancy and working are necessary to regenerate the forests, the natural reproduction having been ruined by fires and cattle-grazing. Part of the revenue is derived from what is known as the permit system; that is to say purchasers on the payment of a fixed seigniorage obtain a permit. On the strength of this permit, they can enter the forests indicated and cut the produce mentioned in the permit. The minor forest produce, such as cardamoms, pepper, dammer, honey, wax, deer-horns, turmeric, gallnuts, soapnuts, is collected in the Anamullays by junglemen (Kadar, Pullar, Malasar); it is brought by them to depôts in the forest where a contractor buys it from them at a rate fixed by Government. In addition to this he pays Government a seigniorage on the amount collected. In the Anamullays junglemen alone are allowed the privilege of collecting minor forest produce. In the Bolamputty, Jadagam and Mettapolliem forests the right of collecting is sold annually by auction for a lump sum to a contractor, who may employ whom he chooses to collect the produce. A small revenue is derived in the Pulladam talook from the sale of produce of palmyra topes. It has been decided to form fuel and fodder reserves in this talook, and areas of unoccupied land are being selected for the purpose. Before the passing of the Forest Act, the only regular reserves which existed in the district were small portions of the Anamullays. Since then the whole of the Anamullays and the hills surrounding Bolamputty and Jadagam have been notified for reservation.

8. *Commerce and Trade.*—Weaving, the chief industry of the district, supports 18,533 male adults, and, though of late years affected by the low price of British textures, constitutes a lucrative employment. The export trade is small, consisting chiefly in the exchange of cotton of inferior quality, tobacco, and grain, for salt. Pulladam is the centre of the cotton trade, the fibre being there pressed, and despatched to the railway station of Tiroopore for transmission to the ports of Madras and Beypore. Weekly markets held at the towns and larger villages—about 250 in all—provide amply for local interchange of produce. Accumulations of money from the profits of agriculture are to a large extent employed in well-building and the improvement of land; the number of wells is 62,368, representing a value of about one hundred lakhs or one crore of rupees. The rate of interest varies from 6 to 12 per cent. per annum, though 24 to 30 per cent. is sometimes charged; 9 per cent. is considered a good return for money invested in land. Three railways—the Madras South-West, the South Indian, and the Neilgherry branch—pass through the district, having 21 stations within its limits, and traversing 137 miles of country. During 1875, they carried to and from the stations of the district 1,015,237 passengers and 1,134,902 tons of goods, realizing a revenue of Rupees 19,22,840. The principal roads are the Madras trunk road and those leading to Trichinopoly, Madura, and the Burgoor and Hassanore Passes, aggregating a total length of 385 miles, and costing Rupees 44,892 per annum. Kheddahs for the capture of wild elephants which had been established in the north of the district were abolished in 1880. In 1873 an Act was passed forbidding the destruction of these animals; and between 1874 and 1880 132 elephants were captured alive.

9. *Famine, Flood, &c.*—Periods of drought and consequently high prices have recurred at regular intervals, in 1837-38, 1846-47, 1857-58, 1866-67 and 1877-78; but in none of these years except 1877-78 did the scarcity ever amount to famine. In 1876, owing to the failure of crops in Mysore and the Ceded districts, an immense exportation of grain from Coimbatore took place; the result being such a rapid rise in the rates, that in two months the price of cholam had doubled, and raggy, selling in October at 25 lb. for Annas 8, cost in December three times that amount. Relief works had to be opened, which in a month gave employment to 28,000 persons. A steady importation of sea-borne grain now set in and prices soon regained their normal rates. Against famine the district has the best safeguard—a railway traversing it, and good roads communicating with the districts adjoining on all sides.

10. *Medical.*—Coimbatore is remarkable for the comparatively cool winds which blow across it from the west between May and October. The monsoon brings its rain to Malabar, and up to the range of hills separating that district from this; but there it stops, a cold damp wind without any rain blowing during the monsoon months over the plains of Coimbatore. Thus, after the hot months of March and April, the temperature suddenly falls and remains low till October. The district is healthy, except at the foot of the hill ranges, where the atmosphere at night is so malarious that the cultivators dare not remain after dusk. The extension of cultivation having greatly curtailed the pasturage, murrain and 'foot-and-mouth' disease have become very prevalent among the cattle. The latter disease has been communicated to the wild herds of bison, and sportsmen find the numbers of these animals rapidly decreasing from this cause.

11. *General Administration.*—For administrative purposes, the district is divided into 10 talooks—Coimbatore, Pollachy, Pulladam, Caroor, Erode, Oodamalpett, Dharapooram, Suttimungalam, Collegaul, and Bhawany—each of which is supervised by a native staff, revenue and judicial. The Sub-Collector, Head Assistant (European), and Deputy Collectors (European and Native) have superior jurisdiction; the Sub-Collector over four talooks, the Head Assistant over three talooks, Deputy Collector over two talooks, and one Deputy Collector over one talook. The Neilgherry Hills formed until 1868 a sub-division of Coimbatore. The total revenue for 1883-84 was Rupees 34,78,825, and the total expenditure on civil administration, Rupees 8,27,269. The principal items of income were—land revenue, Rupees 28,88,306; excise, Rupees 2,33,720; stamps, Rupees 2,19,648; forests, Rupees 1,21,932; and assessed taxes Rupees 15,219. The chief items of expenditure were—revenue collection, Rupees 1,77,790, administration of justice, Rupees 1,29,200. The judicial apparatus of the district consists of 6 civil courts, and 35 magisterial courts, exclusive of village magistrates. The police force aggregates a strength of 967 of all ranks, being in the proportion of 1 constable to every 8 square miles and to every 1,784 of the population, maintained at an annual cost of Rupees 1,65,185. During 1883, the police made 3,091 arrests, securing 1,902 convictions. The district contains 1 central, 1 district, and 16 subsidiary jails. The central jail accommodates 1,221 prisoners, and is recruited not only from all the districts of the Presidency, but also from Burmah and the Straits. The daily average number of prisoners in it and the district jail was, in 1883, 750; in all the others together, 56.

COONOOR.

Description.—Coonoor is the alternative sanitarium with Ootacamund on the Neilgherries, and being in a more sheltered position is sometimes preferred in that capacity. Its position is lat. 11° 20′ N., and long. 76° 50′ E., and it is distant 363 miles from Madras, 12 from Ootacamund. The scenery of Coonoor differs very greatly from that of Ootacamund; its vegetation is semi-tropical, the contour of the hills is bold, and the colouring of the scenery is bright and warm. On the other hand the vegetation of Ootacamund is rather that of the Temperate Zones; its hill lines are unbroken and undulating, and the colouring of the landscape is ordinarily cold and grey. The climate of Coonoor also differs as widely as its scenery, being warm, moist, and relaxing, whilst that of Ootacamund is ordinarily cool, dry and invigorating. Each supplies a need. The mean annual temperature in the shade at Coonoor is 62° F. In the warmer months the thermometer fluctuates between 55° and 75° F.; in the colder months between 38° and 68° F. The average annual rainfall is 76 inches. The rate of mortality is remarkably low. The height of All Saints' Church above the sea-level is 5,954 feet, that of the Coonoor bridge

about 5,500 feet. Most of the houses occupied by Europeans are between 5,700 and 6,000 feet above sea-level. Coonoor peak, however, is 6,893 feet above sea-level, or only 300 feet below the level of the Ootacamund lake. Coonoor lies at the head of the ravine and pass which bears its name. The native town spreads over the lower slopes of the spurs of two hills, which terminate in a wedge-like promontory where the united waters of three streams break over the edge of the ghaut and are precipitated down the gorge under the name of the Coonoor river, finally joining the Kartairy river. The three streams are crossed by three bridges. On an eminence on the western spur stands the Protestant Mission Chapel, and on the eastern the Roman Catholic Church; below the latter is the market. The road to Upper Coonoor passes up the ridge and thence round the head of the valley, and along the wooded ridge which encloses it on the east and south. On this ridge stands the Coonoor Church, dedicated to All Saints, with a lofty square tower. The church is surrounded by a grave-yard planted with exotic trees and flowers. To the east of this ridge is a ravine separating it from the Tiger's Hill, round which winds Lord Hobart's road, passing into the road to Lamb's Rock, Lady Canning's Seat, and the Dolphin's Nose some five miles eastward of Coonoor above the Kotagherry gorge. Below this road stretching away to the east as far as the eye can see are the Coimbatore and Salem plains, the ancient Conga country; northwards the Biligherryrungam hills and the ranges which mark the line of the Balaghaut country; whilst south and westwards is the Coonoor pass, walled in on the south by the "Hooliculldroog," which is backed by the Lambton's Peak range south of the Bhawany river and by the distant Anamullay mountains. Behind the hill on which the church stands is another valley, one of the ravines on the western side of the Coonoor peak, along which runs the road to Kotagherry. This valley, within the last five or six years, has been formed into a garden named Sim's Park; after Mr. J. D. Sim, a late Member of the Madras Council. It is an offshoot of the deep ravine which divides Coonoor from Wellington, and the upper portion of which has been converted into a race-course, unrivalled by any in India for the picturesqueness and beauty of its position. The drainage of this valley forms the middle stream of Coonoor, which meets the other streams at the old Coonoor bridge. This bridge is the central point of the Coonoor road system. Here the old and new ghaut roads meet, and from it, along the right bank of the western stream as far as the Wellington bazaar, runs the main road to Ootacamund. Above this road to the left is the Sub-Magistrate's Court, the Police Station, Post Office, and a few private residences; and below it the important Ashley Engineering Works.

2. *History.*—The prosperity of Coonoor has been in great part due to the excellent character of the land in its neighbourhood for planting purposes, but also in a measure to its proximity to the railway, as well as the attractions of its scenery and its climate. Ootacamund had become an important station before a bungalow was built in Coonoor; in fact, its existence is due to the demands of visitors from the southern districts for a nearer and easier road to Ootacamund than that by the old Kotagherry Pass.

3. *Area and Population.*—The Coonoor settlement, which includes the Wellington Cantonment, is limited by a line drawn roughly within a radius of two miles from the church. The area within these limits is 11·97 square miles, or 7,660 acres. The population of Coonoor at the census of 1881 was 4,778. The number of houses has very considerably increased of late. House property is much more valuable than at Ootacamund, and it is difficult to obtain building sites. Rents are much the same as at Ootacamund, though the population is less migratory than at that station, many planters residing here permanently. The future of Coonoor depends mainly on the success of agricultural enterprise on the eastern and southern slopes.

4. *Municipal Commission.*—Coonoor was constituted a Municipality under Act X of 1865 in 1866. The Commission is administered almost wholly by European non-official residents, but the Station Medical Officer ordinarily officiates as Vice-President. The commission has done much to improve the station in sanitary as well as æsthetic matters. The steepness of the ground, on which the greater portion of the native town is built, supplies the want of drainage when scoured by the heavy rains. With the exception of the profession tax, the taxes laid down in Act III of 1871 are levied. The tolls however are in the hands of the Local Fund Board, and, as in Ootacamund, the Government maintain the main thoroughfares. The municipal limits are much less extensive than those of the settlement, extending over about three square miles only, and excluding the Wellington Cantonment. They were fixed as follows in 1869. On the east by a line drawn from the Sappers' burial-ground on the old ghaut up to Nanjappa Row's land adjoining Mr. Waits' plantation, and on the top of the hill on the north side of which Mr. Mann's tea plantation is situated, taking in the Bandy Sholah road, and the houses named Woodhouselee, Mr. Hall's house and Elk-hill House; then along to the top of the hill and down its slope to the nullah below Colonel Grant's house to a point in a line with the house; then along the nullah to the point at which it turns eastwards towards Coonoor. From this turn of the nullah the boundary runs in a direct line over the hill to the bridge on the Coonoor and Ootacamund road, in the east side of Wellington, and from the bridge including the Milk Village along its east side, and thence in a direct line to the Kartairy stream; then eastward down the stream to the junction of the Kartairy and Coonoor streams, then up to the latter stream, to the side of the new bridge, and from there in a direct line to the Sappers' burial-ground on the old ghaut, whence it first started.

5. *Public Buildings, &c.*—Coonoor possesses no public building of any size or importance except All Saints' Church. The American Mission Chapel and the Roman Catholic Chapel dedicated to St. Anthony are comparatively small structures. The Public Library is a simple building; the market place (where market is held on Sundays and Tuesdays) consists, as at Ootacamund, of plain tiled sheds. The Post Office was formerly the Travellers' Bungalow; the Sub-Magistrate's Office, the Police Station, the Hospital, the Native Chuttram and the Coonoor Day School are all plain buildings. Sim's Park, artistically planted with beautiful trees and shrubs and laid out as a pleasure ground with summer-houses, also with swings and poles, &c., bids fair to rival the Ootacamund public gardens. At present, however, it possesses no conservatories or green-houses.

COORG.

[*For description of this province see the article on Relations with Neighbouring States and Provinces in Chapter I.*]

CUDDAPAH.

Description.—This district lies between 13° 12′ and 16° 19′ N. lat., and 77° 52′ and 79° 48′ E. long. Its area is 8,367 square miles; and population, in 1881, 1,121,038. It is bounded on the north by the district of Kurnool, on the east by Nellore, on the south by North Arcot and the State of Mysore, and on the west by Mysore and Anantapore.

2. *Physical Geography.*—Cuddapah district lies beneath the western slopes of the Eastern Ghauts and the opposing face of the Mysore plateau, forming an irregular parallelogram, shut in on the east and south by high mountain ranges, and on the west and south-west stretching away into broad plains. The Palcondah and Seshachellam range bisects it into two divisions, which differ materially in general aspect and character. The upper half consists in part of a bare expanse of black cotton-soil and elsewhere of thickly wooded hills, from which impetuous torrents descend in the rainy season to the Pennair, the only stream in the district which deserves the name of river. The other streams of Cuddapah, though small, are of value to the country, and on their banks are found all the busiest centres of population. The lower half of the district, skirted on the east and north-east by the Seshachellam range, slopes up gently from the foot of those hills till it merges in the Mysore plateau, undulating so continuously throughout its extent that it would be difficult to find in the whole a perfectly level mile of ground. Isolated hills and masses of rock stud the country, in some instances, as at Goorramcondah, forming objects of peculiar picturesqueness and grandeur. The main watershed of the country runs north-west and south-west, discharging its drainage into the central valley of the Pennair, the chief tributaries being the Coondair and Saglair. The other larger streams are the Chitrauvaty, Paupugny and Cheyair. The last of these exhibits scenery of remarkable grandeur along its course and all have hills of alluvial soil, varying in breadth, sloping up from either bank. Among the "feræ naturæ," cheetah, samber deer,

bear, wild boar, and porcupine may be considered characteristic of the jungle-clad hill tracts, while elsewhere antelope, wolf, hyæna and fox are common.

3. *History.*—Passing over the tradition which assigns to Cuddapah a conspicuous place in the story of Rama, and the debateable era of the Hindoo kingdoms, the history of the district may be said to begin with the Mahomedan period. The Hindoo kings of Vijianugger then exercised feudal authority over this tract, which was long saved by its numerous hill forts from falling under the permanent subjugation of the Mussalmans. But after the disaster of Talicote in 1565, Cuddapah became the high road for the armies invading the Carnatic, and was distributed in small sub-divisions among various Mahomedan chiefs subordinate to the Golcondah kingdom. One of the latter, the Goorramcondah Nawab, exercised more than local powers; he enjoyed the privilege of coining money, and, except for the feudal obligation of military aid, was subject to none of the usual conditions of a tributary. But about 1642, the estate fell into the possession of the Mahrattas, and the chief had to take refuge with the Nizam, by whom he was subsequently assigned another jagheer. Meanwhile Cuddapah was plundered by Sivajee, the Mahratta, who placed Brahmins in charge of each of the conquered strongholds, and, to use a phrase of contemporary history, "scraped the country to the bones." A gap then occurs in local history. But early in the following century, Abd ool nabee Khan, the "Cuddapah Nawab," is found acting independently of the Nizam, and laying under tribute the poligars of the tract known as the Baramahaul, notably the chief of Poonganore, who, besides an annual payment of 32,000 pagodas, was required to maintain a force of 2,000 armed men. Three Nawabs of Cuddapah ruled in succession each increasing the power bequeathed to him; but the third came into collision with the rising power of the Mahrattas about the year 1732, and from this event dates the decline of the house. In 1750, however, the Cuddapah Nawab was still playing an important part in the affairs of the Carnatic. In the following year, he headed the conspiracy in which Mozuffer Jung, the Nizam, lost his life in the Lakkireddipully Pass; killed it is said by the Nawab of Cuddapah himself. In 1757, the Mahratta chiefs gained a decisive victory over the Pathaun chiefs at the town of Cuddapah, but lost all advantage of the victory by the advance of the army of the Nizam, with a French contingent under M. Bussy. Meanwhile, Hyder Ally had risen to supreme power in Mysore. Jealous of the Mahratta successes, he intrigued successfully for the surrender of Goorramcondah fort; and in 1769, having signed a truce with the British, turned all his attention to Cuddapah. In a secret treaty with the Nizam he stipulated for a joint invasion of the Coromandel coast, and in the distribution of conquered lands, in return for the possession of Cuddapah by Mysore. A series of invasions and counter-invasions followed. In 1782, on the death of Hyder Ally, a descendant of the last Cuddapah Nawab claimed the title, and was supported by a small British detachment, which however was treacherously massacred during a parley. For the next few years, Cuddapah enjoyed comparative rest; but in 1790, when the Mahrattas, the Nizam, and the British combined to overthrow Tippoo Sultan, the Nizam's first step was to recover Cuddapah. In 1792, Tippoo signed a treaty ceding the whole of the Cuddapah district, with the fort of Goorramcondah to the Nizam, who granted it in jagheer three years later to M. Raymond, to defray the expenses of the contingent he was commanding. But the Madras Government, disquieted by this occupation of so important a frontier post, compelled M. Raymond's withdrawal by threatening to attack Cuddapah. For the next few years, a disorderly contention for the forts of the district took place among the poligars. In 1799, after the fall of Seringapatam, Cuddapah was transferred by the Nizam to the British, in satisfaction of arrears of pay due by him to his British contingent. In 1800, this cession was formally ratified, and since that date the district has had but little history. Sir Thomas Munro, the first Collector of "the Ceded Districts" (Cuddapah, Kurnool, and Bellary), found Cuddapah held by some 80 poligars or feudal chiefs, all maintaining bodies of retainers who subsisted entirely by plundering the open villages. These feudal chiefs asserted their independence, but one after the other were reduced to submission; and the district was surveyed, assessed, and brought into order by the establishment of a police and a settled administration of justice. In 1807, when Sir Thomas Munro retired from his post, the Madras Government recorded their appreciation of his services in the following order:—"From disunited hordes of lawless plunderers and freebooters, the people are now as far advanced in civilisation, submission to the laws, and obedience to the magistrates as any of the subjects under this Government. The revenues are collected with facility; every one seems satisfied with his position, and the regret of the people is universal on the departure of the Principal Collector." In 1832, the Pathauns of Cuddapah, affecting to see in an act committed by one of their own faith an attempt to outrage a place of worship, raised a riot, in which the Sub-Collector (Mr. Macdonald) was murdered. In 1846, a descendant of the dispossessed poligars of Nossam, dissatisfied with the pension he received, attempted to excite a general rebellion, and collected on the frontiers two forces of several thousand men. Each was promptly defeated by British detachments, and before the end of the year quiet was completely restored. Since that date, no event of historical importance has occurred. Of all the turbulent Poligars not one now remains in occupation of his ancestral property, but their descendants receive small allowances from the Government. Their estates are now held on direct tenure by the cultivators, to whom they have been leased in small lots.

4. *Archæology.*—This district does not possess many archæological features. There are forts of Poligars, who asserted themselves after the breaking up of the Vijianugger dynasty. It has been suggested that the Pennair or Pinaukiny river, which flows through this district may be identified with the Tynna of Ptolemy, ΤΥΝΝΑ being an error for ΠΥΝΝΑ. Cuddapah itself (properly Karipa, from Kripa, "pity") may be the Karige of Ptolemy, by a similar error, ΚΑΡΙΓΗ for ΚΑΡΙΠΗ. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The census of 1881 disclosed a total population of 1,121,038 persons living in 278,331 houses on an area of 8,745 square miles, giving an average of 4·5 persons per house and 128 per square mile. The adult population consists of 368,208 males and 356,384 females; of the children (under 15 years of age) 201,762 are boys and 194,684 girls, showing the proportion of females to males to be only 96 to 100. Arranged according to religion Hindoos number 1,017,211; Mahomedans 97,749; Christians 6,067; others 2, and not stated 9. The Hindoos classified according to form of worship showed 50·3 per cent. Veishnavas, 49·2 per cent. Shiveites, leaving 0·5 for Lingayets and others. Classified according to caste, 43·5 per cent. were Vellalar (cultivators); 8·5 per cent. Idayar (shepherds); 5·1 per cent. Keikalar (weavers); 3·4 per cent. Chetties (traders); 3·5 per cent. Shembadavar (fishermen); 2·4 per cent. Brahmins (priests); 1·5 per cent. Cshatriyas (warriors); 14·5 per cent. Pariahs; leaving 17·6 for other classes. Of the Vellalar 54·9 per cent. engage in their caste occupation; of the Brahmins 24 per cent. own landed property and 25·1 per cent. follow the learned professions, or are in Government employ. It is noteworthy that, while the Brahmins are by a vast majority returned as Shiva-worshippers, the Cshatriyas are generally Veishnavas. The Mahomedans arrange themselves as follows:—Lubbays 60; Moghul 111; Pathaun 1,228; Syeds 998; Sheikhs 6,579; others 9,421; not stated 79,352. Arranged according to their faith Soonnees number 91,183; Shiahs 191; not stated 6,375; females (47,032) bearing to males (50,717) a proportion of only 92 to 100. Of the Christians (6,067) nearly all are Pariahs, most of them being Protestants. The wandering tribes—known to the police as the "criminal classes"—comprise the Yanaudies, Yerkalar, Chentsoos, and Soogalies. The first of these, a low-statured race, live among the hills on the frontier of the district, descending at times to take employment in the plains. In their unreclaimed state they are determined plunderers of the shepherds' flocks. In the Forest Department their woodcraft is turned to good account. The Yerkalar will seldom settle, preferring to wander about, under pretence of collecting jungle produce. A favourite form of crime with them is to enter an unguarded house at night and wrench the jewels from the ears of sleeping women and children. The Soogalies who are comparatively harmless resemble European gipsies in their wandering life, picturesque costume and pilfering tendency. The Chentsoos, physically a fine race of men, are most incorrigible criminals, showing little regard to human life. The inhabitants have doubled during the last forty years, but the emigrants to the West Indies from the neighbouring districts would here still find plenty of land. From Cuddapah there is no emigration. Of the 5,570,086 acres in Cuddapah district only 1,628,030 are reported as under tillage. Of the population about 500,000 may be called "urban," inhabiting 12 towns with a population exceeding 5,000 and 108 villages with from 2,000 to 5,000 inhabitants. Number of minor hamlets is 1,121, giving over 7 to the square mile. The chief towns are—Cuddapah with 18,982 inhabitants; Budwail 8,638; Proddootore 6,510; Pauta Cuddapah, Kadiry, Madanapully, Vempully, Poly, Ootcore, Codoor Shetticoonta, Pedda Mallela, all having over 5,000 inhabitants.

6. *Forestry.*—In this district forest work has been longer set on foot than in most others in the northern circle. There are forests in all talooks, but the chief areas are those of the Palcondah Hills, the Seshachellam Hills, the Veligonda Range, the Lunkamullay Hills, the Nullamullays, the Yerra-

mullay or Jummalmudoogoo Hills, and the scattered hills of the Kadiry and Madanapully talooks. At present the total area of reserved forests is 194,560 acres or 304 square miles and that of the village forests in Jummalmudoogoo and Proddootore talooks is 7,719 acres or 12 square miles. Besides these there are some topes now transferred from the Jungle Conservancy Department to that of Forests measuring 71,349 acres. The forest improvement is still progressing, and some additional areas have been selected and are in course of settlement. On the Palcondah Hills red sanders (Pterocarpus santalinus) is the chief tree, but teak of small size is not uncommon with yepi (Hardwickia) and other species. In the valleys are large mango and fig trees. Owing to great demand for the railway supply, jungle fires, over-grazing and excessive lopping of leaves for manure, these forests are reduced to small trees and scrub only, but large areas have now been proposed for reservation and with careful protection, especially from fire and goats, they will rapidly improve, and indeed even now show promise of great value. It is probable that there is no more valuable wood in India, except sandal, than red sanders, and it is well that that tree was specially selected for prohibition of felling some years ago, for otherwise there would be very few left. The Seshachellam Hills are very similar in growth, and indeed so also are the Veligondas and Lunkamullays, in the former of which the tamba (Shorea Tumbuggaia) and jalaury (Shorea laccifera), both valuable timbers similar to the saul, occur. The forests of the Nullamullay Hills enjoy a better soil and the growth is consequently better. In the hills of the Kadiry, Madanapully, Royachoty and Voilpaud talooks red sanders does not occur, and it is probable that the chief tree is the yellamaddy (Anogeissus latifolia). Lying at the head of the valley of Poollampett, between the Palcondah and Veligonda Hills are the Ballipully evergreen forests which are being regularly worked for the supply of the Madras Railway. The best trees are the ebonies, satinwood, palla (Mimusops Indica) and acacias, while many large clumps of bamboo, the large one (Bambusa arundinacea) in the plains, the small kind (Dendrocalamus strictus) on the adjoining hills, are much cut and exported. In this district there are many experimental plantations, chiefly made in order to find out the best system of reclothing bad soils. They have not been always very successful, but have afforded some experience, and some of them are doing well. The red sanders plantation at Kodoor has done very well indeed and the only regret is that the area is not much larger. It was begun in 1865 and the trees are now about 42 feet high with a main girth of about 18 inches, the average yearly increment so far having been about 3 tons per acre. The Cuddapah district has many topes, mostly along roads, and of good growth when it is considered that the best soils were not always chosen. Large areas have been proposed as legal reserved forests in most talooks except Jummalmudoogoo, which has not yet been finally reported on, and the settlement is in progress; the Tanacondah reserve so far, with one or two plantations have alone been finally notified, but the large Settikoonta reserve has also been completed. The chief forest undertakings in the district are the supply of the railway, which is done by contractors, and the collection and sale of red sanders roots and pieces for export. About 1,500 tons are brought out annually, valued at about Rupees 18,000. The wood is sent to England as a dye, probably as a substitute for logwood. Among other important products, the chief is the tungaid bark (Cassia auriculata), which is very common and of which large quantities are exported for tanning. The Cuddapah forests, altogether, are of very great importance, and their position, bordering a line of railway, gives them a high value independently of that conferred by their usefulness in protecting the hills and the sources of the streams. The head-quarters of the division are at Cuddapah, of the Assistant Conservator at Kodoor, and of the ranges at Kodoor, Rajampett, Cuddapah, Proddootore, Sidhout, Budwail, Royachoty, Voilpaud, Kadiry and Madanapully. There are three forest houses at Kodoor, Sanipayya and Horsleycondah, and more are projected as well as good roads to open up the forests.

7. *Commerce and Trade.*—The manufacture of cloth from the cotton produced in this district ranks first amongst the local industries. In 1804 the number of looms was estimated, under the East India Company's system of "Investments," at 19,626, turning out annually goods to the value of Rupees 23,00,000; and in 1875 the outturn of cotton having more than doubled since 1804, the value of the manufactured produce was estimated at Rupees 40,00,000. The manufacture of indigo has of late years decreased, the European firms having closed their factories, and the business falling entirely into the hands of native producers. The sugar made in Cuddapah commands a market throughout Southern India, the cane being of superior quality. The roads of the district aggregate a length of 1,118 miles (a great portion being over cotton-soil and passable only in dry weather), and are spread equally over the district. They branch off from the three main lines from Madras to Bellary, Kurnool and Kadiry. Tolls are about to be introduced in some of these as the local funds were found to be insufficient for their upkeep. A canal 35 miles in length runs viâ Proddootore to Cuddapah and boats are plying and traffic is carried on except in the hot season. The Madras Railway North-west Line traverses the district for 121 miles with 14 stations. It is proposed to construct a line of railway from Tripatty to Madanapully and beyond so as to join the South Mahratta Railway. The survey is in progress.

8. *Famine, Flood, &c.*—Between 1800 and 1802 there was considerable distress in Cuddapah, and relief works were opened. Again in 1866 very high prices obtained; and the great drought of 1876-77 caused severe suffering throughout the district. In 1865, part of the district suffered from a visitation of grasshoppers. From the commencement of the district history, alternate droughts and floods appear to have prevailed. Three years of drought preceded a great bursting of the tanks in 1803; and in 1818, after a dry year, 180 tanks in one talook alone were breached by the sudden and excessive rainfall. In 1820, a violent storm burst 770 tanks, causing the destruction of a few human lives and many cattle. In 1851, there was a greater mortality from the same cause; in one of the villages swept away, 500 people were drowned. Cuddapah suffered severely in the great Madras famine of 1877, for an account of which see the article on Madras Presidency.

9. *Medical.*—The climate, though trying, does not appear to be unhealthy. In January and February, north-east winds, cool and dry, keep the temperature at about 75° F., but in March the heat begins to increase, and till the end of June the mean varies from 95° to 100° in the shade. From July to September inclusive, cooler breezes, with occasional showers, prevail from the south-west, and from September to December, during the north-east monsoon, the temperature averages 70° F. Cholera occasionally visits the district in an epidemic form, but causes no serious mortality. Small-pox shows a lower death-rate than in any other district of the Presidency, except Ganjam and South Canara. Fever carries off great numbers annually; and to this cause is probably due the reputation for unhealthiness unfairly bestowed on the district. The death-rate in a recent year from cholera, small-pox, and fever was 21,753 males and 21,459 females, of whom 114 males and 122 females died from cholera, 2,542 males and 2,554 females from small-pox, and 19,097 males and 18,783 females from fever. The disease called "Madura-foot" is endemic in the black-cotton soil talooks. Vaccination still meets with opposition and makes but little progress. The annual rainfall of the district between 1878 and 1883 averaged 30·44 inches.

10. *General Administration.*—For administrative purposes, the district has been divided into eleven talooks. The land revenue amounted in 1883-84 to Rupees 18,56,846, while excise yielded Rupees 1,84,997, stamps Rupees 1,48,123, forest Rupees 81,405, assessed taxes Rupees 22,598, registration Rupees 10,425, other sources Rupees 55,960, while local funds and special funds yielded Rupees 4,45,319, total revenue, more than Rupees 28,00,000. The cost of all the establishments and contingencies—revenue, police, judicial, forest, education, registration, &c.,—for the said year was Rupees 5,54,629. The Local Funds Department maintained an establishment of Rupees 64,893. In this district the enfranchisement of service inams and the collection of village cess have not yet been carried out throughout its entire extent, the principal division only having come under the operation of Act IV of 1864. The payment of village servants amounted in 1883-84 to Rupees 2,30,254, the extent of dasbandam inam lands (which stood at 232,011) is gradually diminishing, this does not, however, include the alienations in personal and religious inams amounting to an additional amount of Rupees 6,00,000. In fact, such an excessive quantity of inam land has been granted in this district that the cultivating class is to a considerable degree independent of Government land. The administration of justice is conducted by one district court and 4 moonsif's courts and 31 criminal courts, the proceeds of the former in fees not only meeting all the expenses of the civil courts, but going far to cover those of the criminal. The returned value of the civil causes disposed of in 1883 was Rupees 4,54,084, the total number of criminal cases 5,343 resulting in the conviction of 4,065 persons. The police force comprises 1,066 men of all ranks, giving a proportion of 1 to every 8 square miles and every 1,051 of the inhabitants, and is maintained at a total cost of Rupees 1,53,907. To aid the regular police 373 ghaut taliaries are maintained at an annual cost of Rupees 22,380, the charge being met from the quit-rent levied on jangi cuttoobuddy inams. The district possesses one jail in the town of Cuddapah, with a daily average population of 130·62 costing

Rupees 103-5-4 per head, and 12 subsidiary jails for short-sentenced prisoners. Education is provided for by a grant from local funds, amounting to Rupees 14,016 and by a grant from provincial funds to the amount of Rupees 298. In 1883-84 there were 233 schools distributed over the district with a total attendance of 2,382 pupils. Besides this there is a Government high school at Cuddapah with an average attendance of 210, and a Government middle school at Madanapully recently transferred from the Bellary district. The only municipality is that of Cuddapah with an income, in 1883-84, of about Rupees 38,000 from which are supported 2 elementary schools, a civil dispensary, vaccinating staff, conservancy establishment, one poor-house, and middle school department of the Government high school. The religious institutions of the district are important in the aggregate, Government continuing an ancient allowance of Rupees 26,841 by means of beriz deductions and local piety contributing very extensive endowments. The beriz deductions from Government villages amount to Rupees 26,678 and those from shrotriem villages to Rupees 163. The car festival in the Proddoottore and other talooks, the bathing festival of Pooshpagherry and Gangajathara festivals all attract large assemblages and facilitate the interchange of local products.

GANJAM.

Description.—This district lies between 18° 15′ and 20° 15′ N. lat., and between 83° 49′ and 85° 15′ E. long. Area, 8,311 square miles; population, according to the census of 1881, 1,749,604. It is bounded on the north by Pooree district in Orissa; on the east by the Bay of Bengal; on the south by Vizagapatam district; and on the west by the estates of Kalahundy, Patna, and Jeypore.

2. *Physical Geography.*—The district is mountainous and rocky, but interspersed with valleys and fertile plains. In shape it resembles an hourglass, contracted in the centre, where the Eastern Ghauts nearly meet the sea, and widening out into undulating plains in the north and south. Groves of trees give the scenery a greener appearance than is usually met with in the plains farther to the south, whilst the rugged mountains, frequently covered with dense jungle, relieve the eye. A chain of fresh-water or brackish lakes runs all along the coast, being separated from the sea by narrow strips of sand. Salt swamps and backwaters are also not uncommon. The chain of the Eastern Ghauts, known as the Maliahs, which occupies the western portion of the district, rises to an average height of about 2,000 feet. The principal peaks are—Mahendragherry (4,923 feet), Singaraj (4,976), and Diyodanga (4,534). The form of the Maliah Mountains is usually conical, and they are more or less wooded along the sides; whilst the fertile valleys lying between are either cultivated by the rude aboriginal tribes who inhabit the tract, or afford pasture to large herds of buffaloes, cows, or goats. The passes which lead from the low country of Ganjam into the Maliahs along their entire length of some 140 miles are very numerous, but only one, the Calinga Ghaut, possesses a road available for wheeled traffic. Many of the passes are, however, available for elephants and other beasts of burden, although the paths are generally rocky, rugged, and steep. The chief rivers are—(1) the Rooshcoolya in the north, which rises in the hills beyond the district boundary, and, after a course of about 100 miles, falls into the sea near Ganjam town; the river is not ordinarily navigable, but rafts can be floated down it in the flood season between June and November. (2) The Vamshadhara rises in the Jeypore Hills, and, after a course of about 145 miles, falls into the Bay of Bengal near Calingapatam in the south of the district; it is more or less navigable for about 65 miles from its mouth, but as the banks are steep and fringed with trees, the want of a towing-path is a great obstruction to navigation. (3) The Langoolya takes its rise in Kalahundy, and, after flowing for about 115 miles, enters the sea near Maphooz Bunder. Besides these rivers, there are numerous mountain streams and torrents, which are utilized for the purposes of irrigation. The banks of the rivers are usually steep and high, and there is in all of them a great tendency to accumulate silt. Their channels dry up in the hot season, but during the rains between June and November they are usually in full flood and frequently overflow the country. Owing to the vicinity of the Eastern Ghauts to the sea, however, the floods subside with rapidity, and from the same cause the rise of the waters in the rivers is frequently so great as to cause considerable damage to property, and not unfrequently loss of life. Sea and river fisheries form an important industry, and the fishing castes are returned at nearly 41,856, or 2·40 per cent. of the Hindoo population. Pearl oysters, but of an inferior quality, are found in the Sonapore backwater, and, in the canal which runs from the Chilka Lake to the Rooshcoolya river. Iron ore, limestone, building stone, sandstone, talc, and crystal comprise the mineral products. Timber forests are numerous and extensive, consisting chiefly of saul, with satin-wood, sandal, and ebony, in smaller quantities. Bees' wax, honey, turmeric, and myrabolams are jungle products, and important articles of commerce, being sold by the hill Khonds to the low-country merchants. Wide grazing grounds exist, which afford pasturage to large herds of cattle. Wild beasts are numerous in the hills.

3. *History.*—Ganjam anciently formed part of the southern kingdom of Calinga. Its early history is involved in obscurity, and it was not until the long line of Gujaputty or Gungavamsa kings (1132-1532) occupied Orissa that the adjoining district of Ganjam was annexed to that province. Owing to the nature of the country, Ganjam was only nominally reduced by the Mussalmans, who overran Orissa for the first time about 1560. In 1641, the king of the Kootbshahy kingdom sent a deputy, Sher Mahomed Khan, to Chicacole to rule over the country as its first Fowjdar. The present Ganjam district formed under the Mussalmans a part of the Chicacole Circar, and the country south of the Rooshcoolya river at Ganjam, as far as Causibooga, was known by the name of the Ichapore province. Different Fowjdars and Naibs continued to rule over the Chicacole Circar until 1753, in which year the Northern Circars were granted to the French by Salaubut Jung, to cover the pay and equipment of the French auxiliaries in his service. M. de Bussy, who managed the affairs of the French at Hyderabad, proceeded to the Northern Circars in person in 1757, in order to secure the revenues on behalf of his native allies. After reducing the country as far as Goomsoor, on the south-west border of Ganjam, M. de Bussy was obliged to return, being recalled by M. Lally, the Governor of Pondicherry, who required his services at the siege of Madras (1758). In 1759, an expeditionary force under Colonel Forde, sent from Bengal by Lord Clive, was successful in taking Masulipatam, and upon the key of their position in the Northern Circars falling into the hands of the English, the French found themselves obliged to abandon Ganjam and their other factories in the north. In 1765, the Northern Circars were granted to the English by the Moghul Emperor's firmaun, dated the 12th August 1765; but it was not until the 12th November 1766, that Nizam Ally, the Soobahdar of the Deccan, agreed to ratify this firmaun by actually ceding the country to the English. In August 1768, Mr. Edward Cotsford took possession of Ganjam as the first English Resident, and founded an English factory there, which he secured by means of a small fort. From 1768 down to 1802, the Ichapore province was ruled by a succession of Residents, Chiefs in Council, and Collectors; and in the latter year, the country south of the Poondy river, as far as Chicacole, was formed into the present district of Ganjam. The earlier records (1768-1802) of the district show that the zemindars were accustomed only to pay their tributes under actual pressure; and that the country was continually in a state of disturbance and confusion. Plunder, rapine, murders, and incendiarism were common, and one zemindar had to be reduced by troops. In 1815, a severe epidemic fever prevailed in the town of Ganjam, and carried off some 20,000 people in the course of the three years that it raged in the district. In 1816, the Pindarries came down upon the Parlakimedy zemindarry, and ravaged the country from Ichapore to Ganjam. In 1819, the disturbances in the Parlakimedy and Mohiry zemindarries had risen to such a height, that Government sent Mr. Thackeray to Ganjam as Special Commissioner to devise means for quieting the country. It needed the presence of a strong body of regular troops to crush the spirit of insubordination which had been fostered in the district by many years of a weak and vacillating policy. In 1834-35, the Parlakimedy campaign took place, Brigadier-General Taylor in command. The judicious measures of Mr. George Russell, the Special Commissioner in this and the two succeeding Goomsoor campaigns of 1835-37, did much to place the district on a more satisfactory footing, by reducing the two most refractory and influential zemindars in the district. The first contact of the English with the aboriginal Khonds occurred in 1836, when it was discovered that they were addicted to the practice of human sacrifice (Meriah). A special agency, under European officers, was deputed to the tract, and succeeded in inducing the Khonds to abandon the rite. In 1865, a

partial rising of the Khonds took place, but it was of an unimportant character, and was suppressed without the aid of regular troops. Since then the district has enjoyed undisturbed peace. Disturbances of some note took place in the Cuttigodo portion of the Maliahs in 1877, but they were quelled by the Police. In 1880-81, the Sowrahs of Colacottah of the Parlakimedy Maliahs were hostile and it was thought that resort to force would be necessary, but the then Acting Principal Assistant Agent, Mr. MacCartie, succeeded in effecting a settlement.

4. *Archæology.*—There are no ancient rude stone monuments in the district; but the Sowrahs of the hill tracts to this day erect menhirs in honor of their dead. No monumental carved stones in honor of heroes, warriors, or satis are known to exist, nor any traces of ancient commerce with other nations. The worship of village goddesses and demons prevails largely to the present day. No Booddhist or Jain remains are at present known to exist except the celebrated Asoca Rock Inscription at Jowgada; but it is possible that some will be traced hereafter. There are various Brahminical remains. Mahomedan remains also are numerous, especially towards the sea coast. The principal mosques are at Berhampore and Chicacole. The best known of the ancient forts are at Jowgada, Kesarapully, Poorooshottapore, and Calingapatam. The celebrated Asoca inscription at Jowgada is of great interest and importance in questions connected with philological history; regarding which reference should be made to Vol. III. Barwah in the Jalantra division is mentioned by Ptolemy as the point whence the sailors struck across the Bay of Bengal in sailing to the opposite coast. The Mahendragherry mountain is of antiquarian interest. Calingapatam is considered to have been the second capital of the Calinga kingdom, and Chicacole the earliest. The origin of the name Ganjam is not known. About the year 639 A.D. the Chinese Pilgrim Hwen Thsang visited a country 200 miles south of the capital of Odra (Orissa) which he calls Kong-yu-to, and this not improbably represents the name which is now corrupted into "Ganjam." A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—A census of the district was taken in 1881, which returned a total population of 1,749,604, inclusive of the hills. Excluding these sparsely populated tracts, the population of the plains amounted to 1,503,301—viz., 739,423 males and 763,878 females. The population is almost entirely composed of Hindoos, who are returned at 1,741,174 or 99·52 per cent., divided as follows:—Brahmins, 121,871; and other Hindoos, 1,613,303. The Mahomedan population numbers 6,073, comprising 28 Moghuls, 168 Pathauns, 112 Syeds, 411 Sheikhs, 2 others, and 5,352 not stated. Christians number 1,551, of whom 129 are Europeans, 222 Eurasians, 779 Native Christians, and 421 not stated. Booddhists and Jains number 270; and all others, 536. The aboriginal tribes inhabiting the hill tracts are principally Khonds (112,166) and Sowrahs (50,163) who have now nearly all embraced some form of Hindooism, and are included in the general number of Hindoos returned above. Ethnically, the Ooriyahs form two-thirds of the district population, the remainder being for the most part Teloogoos. Their manners and customs differ, and they speak a distinct language. The Ooriyahs are chiefly found in the north of the district, extending as far south as Parlakimedy. South of Causibooga, and throughout the Chicacole division, the larger number of the inhabitants are Teloogoos. There is, however, no clearly defined line between the country occupied by the two races. The principal towns in Ganjam are—Berhampore, 23,599; Chicacole, 16,355; Parlakimedy, 10,812; Narsannapett, 8,230; Ragoonathapooram, 7,634; Ichapore, 5,528; Ganjam, 5,037; Calingapatam, 4,465; Barwah, 4,298; Aska, 3,909; Poorooshottapore, 3,962; Russellcondah 2,613; Gopalpore, 2,675. Forty-six other towns contain upwards of 2,000 inhabitants. The only municipalities are Berhampore and Chicacole. The total area of the district (1881) now ascertained by the census amounts to 8,311 square miles, of which 5,205 are comprised in the Maliah Hill Tracts, and 3,106 form the plains portion. Of this latter, about one-third is returned as under cultivation, one-third as cultivable, and the remainder as uncultivable waste. Rice occupies more than two-thirds of the area under cultivation. The peasantry, as a class, are poor, and generally in debt to the money-lenders, forestalling their crops by borrowing, or by selling the produce at a cheap rate for payment in advance. An average holding consists of about 8 acres, paying a rental of about Rupees 20. Wages have increased of late years. The average rates from 1871 to 1876 were, for ordinary labourers, from 1 anna 8 pies to 2 annas per day; for women, from 1 anna to 1 anna 4 pies per day; and for blacksmiths and carpenters, 4 annas to 6 annas. Prices of rice and food grains have risen to more than double the rates prevailing in 1850, and in the case of rice, to treble the former rates. The rates in fusly 1292 (1882-83) per Madras garce of 9,874 lb., were as follow:—Best rice, Rupees 293; common rice, Rupees 246; wheat, Rupees 400; raggy, Rupees 125. The average prices of the four fuslies from fusly 1289 to fusly 1292 are:—rice, 1st sort, Rupees 319; 2nd sort, Rupees 265; wheat, Rupees 413; raggy, Rupees 135. Tenures are of three kinds—(1) Ryotwarry, or small farms held by individuals direct from Government; (2) koshtagoota, in which whole villages unite in a system of holding lands in common, direct from Government, with joint responsibility for rent; (3) moostajary, or the farming-out system, which is confined to the zemindarry tracts. By the last system lands are put up to auction, either in lots or in entire villages, and knocked down to the highest bidder, who is left to make what profit he can out of the actual cultivators of the land.

6. *Agriculture.*—Principal crops:—(1) Cereals—rice, cholam, raggy, wheat, cumboo; (2) Pulses and oil-seeds—gingelly, castor-oil, rape, doll, and several other varieties of gram; (3) Fibres—cotton, hemp, flax, jute; (4) Miscellaneous—sugar-cane, tobacco, chillies, indigo, onions, garlic. Agricultural operations commence in June, during which month the rains of the south-west monsoon usually begin to fall. In June the early dry grains and paddy seed (rice) intended for transplanting are sown. Rice is sometimes sown broadcast, but is usually transplanted from specially prepared seed-beds. In July and September an ample and continued supply of water is essential to the growth of the young plants. The reaping of the rice or paddy crop commences soon after the 1st November, and sometimes lasts until the 15th January, according as the season has been early or late. An early season betokens, as a rule, a favourable harvest. The dry grain crops (i.e., those grown upon unirrigated land) and early paddy are reaped between the 1st September and the 15th October. The after crop of dry grains continues, however, to be reaped from the middle of February to the beginning of April. A second crop of rice in Ganjam is almost unknown; it occurs, however, in a tract of land not far from Ichapore, bordering upon the sea. Neither cotton nor fibre cultivation is pursued in Ganjam, to the decrease of food-grains. The sugar-cane grown in Ganjam is of excellent quality, and is said to be the best in India. It demands more care and attention, however, than any other crop, and is never grown for two years in succession on the same land. The ground requires to be well-manured with oil-cake or other suitable manure. Sugar-cane is estimated to require one-third more water than rice, and takes ten months before it reaches maturity. In spite of these drawbacks, however, the crop is one which is exceedingly profitable to the peasant who can afford to grow it. Sugar-cane is chiefly cultivated about Aska.

7. *Forestry.*—In the Goomsoor talook, including Sooradah, are large saul (Shorea robusta) forests, the best portions of which lie at the foot of the ghaut range in the valleys of the Gullery and Mahanuddy rivers and on the boundary of the Pooree district in the Kriyambah valley. The saul tree chiefly occurs on the level lands and in the valleys and lower slopes of the hills, the upper slopes being covered, where dry, with forests of bamboo and deciduous trees, and where ravines occur with evergreens and large specimens of the mango (Mangifera Indica). The chief trees in the plains besides saul are the sahajo (Terminalia tomentosa), dhow (Anogeissus latifolia), holondha (Adina cordifolia), and ebony or kendhoo (Diospyros tomentosa). The satinwood (Chloroxylon Swietenia) also is occasionally met with, while in the poor "kankar" lands which here and there alternate with the richer saul-producing soils, the sohoo (Soymida febrifuga) grows to a large size. The prevalence of the mango and tamarind is most noticeable and leads to the suspicion, otherwise also borne out by the homogeneous growth of the saul forests and the rocky nature of the hills, that it is not long since the whole country was under cultivation. It is quite possible that some two or three hundred years ago, a large population cultivated the Goomsoor valleys, but that war, famine or the constant raids of the hill-tribes caused them to remove. The slopes of the Eastern Ghauts which surround Goomsoor on the west and south are clothed with a damper vegetation, and here the saul may be found at an altitude of from 2,000 to 3,000 feet. Large and lofty forest trees cover these slopes, and the tangany (Xylia dolabriformis) and the toon (Cedrela toona) are especially found in damp places. The forests of Goomsoor are in better actual condition than those of Sooradah, for the better means of rafting afforded by the larger river of the latter, the Rooshcoolya, has led to a greater export, especially of firewood and saul poles. In the Berhampore talook, near the sea, and close

to the town of Berhampore are the forests of the Mohiry Hills, capable of great improvement and great utility, though at present worked beyond their means. The hills are largely inhabited by Khonds, who live by 'coomry' cultivation, and the constitution of reserves is therefore difficult. The chief tree in the Mohiry Hills is tangany (Xylia dolabriformis); the saul does not occur. The Agency tracts of Goomsoor and Chinna Kimedy under Government as well as those of Pedda and Parlakimedy and Bodagooda under zemindars, are covered with forest in the less frequented parts. Large saul is common and is to some extent exported, but the absence of export roads from the ghauts will prevent much denudation for some time to come, and before that time does come, it is to be hoped that arrangements for proper conservancy and management will have been made. Rules have already been framed for the Parlakimedy Zemindarry which is at present under the Court of Wards. Most of the zemindarries contain considerable areas of forest land, but very little care is taken of the forests and they are consequently rapidly deteriorating. The forests of the Mahendragherry slopes rising to near 5,000 feet, in the estates of Mundasa, Boodaurasinghy and Jalantra, are worthy of notice, but they are much denuded by 'coomry' cultivation. The upper parts are covered with 'sholahs' as in the Neilgherries and the lower with forest, the principal tree in which is the tangany (Xylia dolabriformis). As in the Goomsoor hills, the mango and tamarind as well as the "sollopo" palm (Caryota urens)—greatly prized by the Khonds and Sowrahs as a toddy yielder—are often found. Along the coast are occasional stretches of scrub forests, some of which will be protected as "fuel and fodder reserves," and in the vicinity of important seaports like Ganjam, Gopalpore, and Calingapatam, it is proposed to make plantations of casuarina. Large areas in Goomsoor and Sooradah have been selected for constitution as reserved forests. Five ranges have been constituted at Berhampore, Sooradah, Mojagodo, Kookkooloobah, and Curcholy. The headquarters are at present at Russellcondah, where is the chief depôt for the sale of timber. Forest houses have been built at Russellcondah and Sooradah and others are in course of construction. Most of the timber goes in the form of sleepers to Calcutta, but there is also a considerable local demand at Aska, Berhampore, and Gopalpore.

8. *Commerce and Trade.*—The district contains 799 miles of made road in the plains, costing an annual expenditure of Rupees 88,689; besides 323 miles of road in the hill country, maintained at a cost of about Rupees 7,000 a year. A tidal canal, 9 miles long, connects the Chilka Lake with the Rooshcoolya river. Salt manufacture is a Government monopoly, and is carried on at Ganjam, Nowpada, Vamaravilly, and Soorlah near Ichapore, yielding a Government revenue of nearly Rupees 24,00,000 per annum.

9. *Famine, Flood, &c.*—Famines, caused by flood and drought, are the principal natural calamities to which the district is liable. The great famine of 1865-66 was principally confined to the northern portion of the district, but its ravages did not reach the same intensity as in the Orissa districts. The famine was caused by the failure of the rains following upon two years of partial scarcity in 1863 and 1864. It is estimated that 60,000 persons perished, either of starvation or of diseases induced by privation.

10. *General Administration.*—The district is administered by a Collector-Magistrate, who is the chief executive and revenue officer, aided by 3 European assistants, a Judge, a Superintendent of Police, and a staff of subordinate English and native officials. A General Deputy Collector has lately been sanctioned. The Government revenue exhibits a steady increase. In 1805-6, the total revenue amounted to Rupees 8,85,120, and the expenditure to Rupees 61,430; in 1850-51, the revenue was Rupees 13,61,440, and the expenditure Rupees 2,23,250; in 1860-61, the revenue was Rupees 21,61,960, and the expenditure Rupees 2,39,700; in 1870-71, the revenue amounted to Rupees 28,53,970, and the expenditure to Rupees 2,07,100; while in 1882-83, the revenue had increased to Rupees 42,10,765, and the expenditure to Rupees 10,39,816. The principal items are salt and land, the former having yielded in 1881-82 a total of Rupees 23,79,378, and the latter of Rupees 12,08,495 in 1882-83. For the protection of person and property there are 27 magisterial and 14 civil and revenue courts in the district. The regular district police numbered 1,195 officers and men of all ranks in 1883-84, costing Rupees 1,56,138. During the year they made 11,339 arrests and obtained convictions against 2,897 persons. The average daily number of prisoners in jail was 798. Murders are unusually frequent in Ganjam district, no less than 26 having occurred in 1875. The other prevalent crimes are housebreaking and theft. Education is in a very backward state, only 7·73 per cent. of the population of the plains being able to read and write. In 1882-83, there were in the plains 1,390 schools maintained or aided by the State, and attended by 29,143 pupils, besides 29 hill schools, attended by 1,496 boys.

GODAVERY.

Description.—This district lies between 16° 15′ and 18° 35′ N. lat., and between 80° 55′ and 82° 38′ E. long. Area, after recent transfers, 7,625 square miles; population, 1,795,369. Bounded on the north by the Central Provinces and Vizagapatam district, on the east by Vizagapatam and the Bay of Bengal, on the south by the Bay of Bengal and Kistna district, and on the west by the Nizam's Dominions.

2. *Physical Geography.*—The district is divided into two almost square parts by the Godavery river. At Dowlaishweram, 30 miles inland, the river separates into two main branches, enclosing the talook of Amalaupooram, the central delta of the river. The eastern delta comprises the talook of Ramchendrapooram with the zemindarry of Cocanada; the western, the talooks of Narsapore, Bheemavaram, and Tanookoo. These deltas are flat, in some places even marshy. They present a vast and unbroken expanse of rice cultivation, dotted by villages, and varied only by clusters of palmyra, cocoa-nut or betel-nut palms. North of the delta the land gradually undulates, and the horizon is broken by conical hills interspersed here and there. Farther north the hills come closer together, and are thickly covered with jungle; but there is no real range of mountains met with till the long broken tableland of Paupicondah (4,200 feet) is reached. Here the Godavery river is completely shut in by hills, forming a magnificent gorge, in some places only 200 yards wide; whereas the river attains a breadth of about 3 miles at Rajahmundry, 50 miles lower down. The hills in all parts of the district are covered with jungle more or less dense. They are never quite inaccessible, but the numerous blocks of gneissic rock with which they are strewn render the construction of any road through or over them almost impossible. Teak is found here and there, and some of the higher hill ranges are covered with clumps of the feathery bamboo. The only navigable rivers of the district are the Godavery and the Severy, which joins the former at Vaddigoodem in Rekapully talook. The Godavery has seven mouths, viz., the Toolyabhaga, the Atreya, the Gowtamy, the Vriddhagowtamy, the Bharadwaja, the Kowsihka, and the Vasishta. The large town of Narsapore is situated at the mouth of one of the two main branches, the French Settlement of Yanam at the mouth of the other. Thirty miles up the river is the famous Dowlaishweram anicut; four miles farther on, the town of Rajahmundry. Northwards still, is the picturesque island of Pautapattesam, covered with pagodas, and a favourite resort of pilgrims; and close to it, the timber market of Polaveram. The ship-building trade of the district is carried on at Tallaraiv, on the Coringa branch of the river. Owing to the volume of the Godavery, and the quantity of silt brought down by it, not only the islands of the river (termed lunkas) but the sea-coast itself are continually changing in form. Each of the seven mouths of the river is deemed holy, and the Godavery is one of the 12 rivers of India at which the feast of Pooshcara is celebrated. The bed of the Godavery, at the point where it enters the district, is sandy; but gradually turns into alluvial mould in its course through the delta. The only lake of importance is the Colair, which is studded with islands and fishing villages. Sea fishing is carried on along the coast. Building and limestone are found in abundance in the uplands, and iron is smelted in small quantities. The forest tracts are those of Rumpa and Bhadrachellam. Chief jungle products—myrabolams, soapnuts, tamarind, bamboo-rice, honey, and bees' wax. The wild animals comprise the tiger, leopard, hyæna, wild boar, antelope, deer, wolf and bear. Game birds are plentiful.

3. *History.*—The present district of Godavery formed part of what is known as the Andhra division of the Dravida country. In the early historical times, it must be considered as divided into two portions. East of the river the country was ruled over by the sovereigns of Calingadesha, of whose origin there is no account, but whose power probably lasted till about the eighth century A.D. West of the river was the kingdom of Vengy-desha,

This latter was under a Booddhist dynasty of Pallavas, whose family name about the fifth century A.D. was Salankayana. They were conquered by the Brahmanical Chalookyas of Calyaunpore about the year 605 A.D.; and, at some period not yet known, these Chalookyas conquered Calinga and established their capital at Rajahmundry. The whole united country passed under the Cholas by an intermarriage in A.D. 1023. It is as yet doubtful whether the next change of sovereignty took place at the time of the conquest of this country by the Warangal Kaukateeyas of the Ganapaty dynasty, or whether meanwhile the Orissa Gujaputties held it for a time. At any rate from about 1200 A.D. the country was under the rule of the Ganapatis till Pratapa Roodra II was made prisoner and taken by the Mussalmans to Delhi in A.D. 1323. Shortly after this the Hindoo princes revolted against the Mahomedan Government, and Warangal again became independent. Warangal was perpetually at war with the Bahminy kings till it was finally overthrown in 1421 A.D. Rajahmundry was at that time under the Orissan Gajapatis. In 1471 A.D., the Bahmany King Mahomed II seized the opportunity of a disputed succession in Orissa to annex the districts of Rajahmundry and Condapilly, Nizam ool moolk being made Governor of Telingana. An attempt was made to regain possession of these provinces by the Hindoos, and Nizam ool moolk was compelled to shut himself up in the fort at Rajahmundry till relieved by Mahomed II in person, who remained there for three years. About the year 1515 A.D. Krishnadeva Roya of Vijianugger captured Condapilly and Rajahmundry. He had penetrated as far as Simhachellam near Vizagapatam by A.D. 1516, where an inscription records his visit to that temple, and mentions his conquest of Oodayagherry, Condaveed, Condapilly, and Rajahmundry. He presented the Rajahmundry and Condapilly provinces to the Gujaputty rajah. Shortly after this the first of the Kootbshahy dynasty of Golcondah, Sultan Cooly, defeated a large combination of Hindoo chiefs at Condapilly, captured Ellore, and advanced against Rajahmundry; but the Orissa rajah concluded a peace by which all the country north of the river Godavery was left in his possession, the Mussalmans retaining Ellore and the land to the south. About the year 1552 A.D. a combination of Hindoo chiefs attacked Ellore, but were defeated, and the fort of Nidadvole was built in order to protect the Mahomedan frontier. In 1564 the Mahomedans planned an attack against Rajahmundry and collected troops. But the Hindoos, preparing an army of defence, found it attain to such proportions that they reversed the proceedings, crossed the river, and attacked Nidadvole. They were defeated and fled to Rajahmundry. The Mussalmans followed, seized Dowlaishweram, and were about to attack Rajahmundry, when they were recalled to take part in the larger operations against the kingdom of Vijianugger. Vijianugger fell in 1565 A.D. Shortly afterwards Rajahmundry was again attacked, and fell into the hands of the Mussalmans in A.D. 1571-72. In 1687, the rule of the Kootbshahy kings was succeeded by that of the Delhi Moghuls, Aurungzeeb, after a long struggle, having succeeded in overthrowing the independent Beejapore and Golcondah kings. Thenceforward the district became known as the Nawabship of Rajahmundry in the Soobah of Golcondah, under the governorship of Asaf Jah. From the death of this illustrious Nizam, in 1748, commenced the struggles between the English and the French in the Deccan and Carnatic, which terminated in the final overthrow of the French power in the East. By 1753, Godavery had become a French province, but in that year it was overrun by the Mahrattas, then at the zenith of their power. Long anterior to this, the English, French, and Dutch had placed factories within the district. The English settled at Masulipatam in 1611, the Dutch in 1660, and the French in 1679; in 1668, the Dutch seized the administration of the town. The English opened factories at Pettapoly, Veeravausaram, and Madapollam in the 17th century, at Injaram and Bundermalanka early in the 18th; the Dutch held Palcole, Narsapore, and Cocanada in 1650; the French occupied Yanam a century later (1750). In 1756, the French captured without resistance the English factories at Madapollam, Bundermalanka, and Injaram; but Lally's ill-advised recall of Bussy in 1758 soon put an end to the French domination in the Northern Circars. In the latter year, Colonel Forde's expedition marched into the district, and in December completely routed the French army under Conflans at Condore. This, followed by the capture of Narsapore and Masulipatam, practically left the Circars (including what now forms Godavery district) in English hands—a state of things confirmed by Imperial sunnud in 1765. Until 1823, the company paid an annual tribute to the Nizam, for the Northern Circars. In that year, it was commuted for a single payment of 11¾ lakhs. Till 1794, this new acquisition of the East India Company was administered on the old system, viz., by a Chief and Provincial Council. As that arrangement was not found satisfactory and proved unequal to the suppression of risings, such as these in Polaveram and Gootaula (1785-1787), a system of collectorates was adopted; and three of these, under a Principal Collector at Masulipatam, nearly represented the present Godavery district. From 1794 till 1802-3, when the permanent settlement was introduced, the history of the district is one continuous struggle with recusant zemindars. The settlement, owing to insufficient knowledge, was unequal in its incidence, and consequently unsuccessful. Constant sales, law suits, and distraints were the result. The failure of the system was pointed out by Sir Thomas Munro in 1822; but it was not till 1843, after several seasons of famine, distress, and steady decline in wealth and population (the latter decreased 30 per cent. in 20 years), that Sir Henry Montgomery was appointed to inquire and report. The reforms instituted on his representations practically put an end to the permanent settlement in this district. In thirty years the population has doubled, and, thanks to the splendid system of navigable irrigation works, the agriculture and commerce of the district are now in a most prosperous condition. In 1859 the boundaries were readjusted, and the three districts of Goontoor, Rajahmundry, and Masulipatam became the present districts of Kistna and Godavery. In 1874, the talooks of Bhadrachellam and Rekapully were transferred to this district from that of Upper Godavery in the Central Provinces.

4. *Archæology.*—In the Upper Godavery talooks of Bhadrachellam and Rekapully, there are a large number of rude stone monuments. The locality were these are chiefly found is a tract extending from 15 miles below Bhadrachellam to 4 miles north of Doomagoodem at Nallampully. No weapons have yet been found in them; but only half-burnt pottery, charred bones, and beads of ivory and glass. From the position of skeletons in the spaces between the circles of stones surrounding some dolmens it would appear that human sacrifices accompanied the funeral ceremonies. Drauksharamam 4 miles south of Ramchendrapooram is one of the most sacred places in the district, with a large temple. Dandaloor 5 miles north-east of Ellore once formed part of the great ruined city of Vaigy or Pedda Vaigy. The latter place was the ancient capital of the Teloogoo kings of Vengy. Madapollam, one of the earliest English factories, and now part of the town of Narsapore, has given its name to a class of cloths known in trade. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—Population has increased largely of late years. In 1856 the number of inhabitants was returned at 1,081,703, and in 1861 at 1,366,831, while by 1871 the number had risen to 1,592,939 on an area of 6,224 square miles and dwelling in 389,712 houses, and in 1881 the number had further risen to 1,795,369 on an area of 7,623 square miles, but living in about 345,000 houses. There are no details of the population in Rumpa, Gooditeroo and Dootcherty Mootahs. In Gooditeroo and Dootcherty the total population is 3,857 living in 39 villages, and in Rumpa 10,899 living in 223 villages. The population of Rumpa is divided between 5,443 males and 5,456 females living in 2,410 houses. These are all the particulars known of these tracts. Classifying the population of the rest of the district according to age and sex, there were 1,780,613 people altogether, of which 883,526 were males and 897,087 were females. Of these again 310,249 were male children under 12 years of age and 252,274 female children under 10 years of age. The population is almost entirely composed of Hindoos, who are returned at 1,737,855 made up as follows: Veishnavites 1,338,711 or 77·03 per cent., Shiveites 309,597 or 17·8 per cent., Lingayets and others 89,547 or 5·1 per cent. The most numerous Hindoo castes are the Vellalar or cultivators, who number 529,504 or 30·4 per cent., the Shaunar or toddy-drawers 161,267 or 9·2 per cent., the Brahmins or priestly caste 89,406 or 5·1 per cent., and Pariahs 422,534 or 24·3 per cent. Of the Mahomedans who number 38,786 in all, 31,858 or 82·1 per cent. are Soonnees, 2,156 Shiahs, and 4,772 "not stated." The Christian population consists of 250 Europeans, 409 Eurasians, 2,580 Native Christians, besides 646 whose nationality is not stated; total 3,885—of whom 600 are Roman Catholics and the rest Protestants. The remaining population consists of 14 Booddhists, 3 Jains and 70 belonging to other denominations not separately classified. The following 23 towns contain upwards of 5,000 inhabitants:—Peroor, 5,264; Amalaupooram, 8,623; Moommidivaram, 5,409; Palivela, 5,561; Veeravausaram,

5,257; Cocanada, 28,856; Polecoor, 5,141; Ellore, 25,092; Nagavaram, 5,839; Achanta, 6,568; Palcole, 7,510; Narsapore, 7,184; Moottiaulpully, 5,265; Antarvedhy, 5,747; Peddapore, 11,278; Pittapore, 11,593; Rajahmundry, 24,555; Dowlaishweram, 8,002; Mundapett, 5,914; Kapileswarapooram, 5,067; Attily, 7,080; Relangy, 5,058; Velpoor, 6,282. Besides these there are 198 towns and villages of over 2,000 inhabitants, the total number of villages being 2,200. Three towns are constituted municipalities, viz., Cocanada, Rajahmundry, and Ellore with an aggregate population of (1881) 78,503. Total municipal income (1882-83) Rupees 86,792, or at the rate of Rupees 1-1-5 per head of municipal population.

6. *Agriculture.*—The total area of the district, including recent transfers, is 7,623 square miles, of which 2,924 square miles, or 1,871,091 acres, are Government land. Of this, 596,804 acres are under cultivation, 431,482 acres are cultivable, and 842,805 acres uncultivable waste. The remaining area is comprised in the zemindarry estates (for which no detailed information exists), or is forest land. By far the greater portion of the cultivated land is under rice. The chief crops of the district are—(1) Cereals—(*a*) rice transplanted (white paddy), five varieties, sown in May and July, and reaped in November and January; two other sorts are sown in June and reaped in October; these crops are grown on marshy land; (*b*) black paddy, sown in June, and harvested in October; (*c*) cholam, sown in June and reaped in November and January; (*d*) raggy, sown in May and June, and reaped in September; these last grow on dry lands. (2) Green crops—(*a*) gram (five varieties), sown in December and reaped in February; (*b*) red-gram, sown in June and reaped in December. (3) Fibres—(*a*) cotton, sown in October and gathered in March; (*b*) jute, and (*c*) hemp, sown from June to August, and harvested from September to January; these are sown on dry land. The district also produces large quantities of gingelly, tobacco, sugar-cane, and indigo. Tobacco requires moist, and sugar-cane marshy, land; the other crops are 'dry.' Great improvement has taken place of late years in the quality of the rice and other food grains raised in the district, owing to the extension of irrigation by canals. A farm 100 acres in extent would be considered a large holding for an agriculturist, one of about 30 acres a middling-sized one, and one of 5 acres a very small one. Government tenants have a permanent right of occupancy in their lands so long as they pay the Government demand. In zemindarry estates, on the other hand, the cultivators are mostly yearly tenants. A few holders of service lands cultivate their fields for themselves without assistance. A number of landless day-labourers are employed in cultivation, paid sometimes in money, and sometimes at a fixed rate in grain, but never by a regular share in the crop. Wages have more than doubled since 1850. A carpenter, smith, or bricklayer now earns Annas 8 Pie 1 in towns and Annas 7 Pies 5 in villages, and an agricultural labourer 3 annas. Women employed in weeding and transplanting are paid at from one-half to two-thirds of the rates for men, while children receive a lower rate. Paddy or unhusked rice, which in 1850 was returned at Rupees 24 per garce (9,860 lb. avoirdupois), is now (1884) worth Rupees 68 per garce.

7. *Forestry.*—Of the forests of this district little is yet known except of those in the talooks of Rekapully and Bhadrachellam on the Godavery. These latter which really continue the Golcondah Hills of Vizagapatam and adjoin the Rumpa Hills, have been for some time under the same system of conservancy which was initiated when they formed part of the Central Provinces. The chief tree is teak (Tectona grandis), but other good kinds are found and notably condah tungaid (Xylia dolabriformis) which here nearly reaches its southern limit on the East Coast. Twelve reserves said to contain 68 square miles have been constituted, but these will have to be increased if a proper area is to be secured. Of these the Gundigoodem reserve is said to be the best, but their capabilities are as yet very little known. There are considerable areas of waste land in the talooks of the Godavery delta which will shortly be examined and reported on. The head-quarters of the division are at Rajahmundry; a Forest ranger resides at Doomagoodem, and other ranges will be constituted as required.

8. *Commerce and Trade.*—The district is well supplied with means of communication by 820 miles of good road, and 527 miles of canals. Principal manufactures—cotton and woollen carpets, sheep-wool blankets, Ooppada cloths and sugar; chiefly conducted by the people on their own account. Indigo manufacture is carried on by natives. The chief articles of trade are grain, cotton, jaggery, turmeric, cocoa-nut, flax cloth, onions, garlic, lace cloths, tobacco, gingelly seed, lamp-oil seed, salt, tamarind, cattle, teakwood, hides, opium, indigo, &c. The trade is carried on along the coast and in large towns and ports by means of permanent markets and in almost all other places by fairs. The principal seats of commerce are Cocanada, Ellore, Rajahmundry, Mundapett, Juggampett, Hasanbada, Narsapore, Palcole, Dowlaishweram, Ambarapett, Juggannadapooram, Coringa and Tallaraiv. The estimated value of imports in 1883-84 was Rupees 24,85,068, exclusive of treasure, which amounted to Rupees 18,81,200; estimated value of exports in the same year, Rupees 1,40,99,520 exclusive of Rupees 10,25,552 of treasure.

9. *Famine, Flood, &c.*—Godavery district was formerly liable to severe floods caused by a sudden rising of the river; these are now controlled by the embankments. No great famine has occurred since 1833. In that year, a famine caused by want of rain lasted from March to September, and numbers of the inhabitants fled from the district. Private charity was widely extended, but no relief-works were opened. Pressure from high prices was also experienced in 1876-77; but the mass of the people being themselves cultivators, and irrigation being abundant, the distress did not require extraordinary relief. The last great cyclone was in 1832. The sea broke in at Coringa, and destroyed a great number of men, cattle, and houses; a small village near Coringa was entirely swept away, and the country was under water for many miles inland. Again, on the 16th November 1839, a similar storm destroyed great parts of Cocanada, Coringa, Tallaraiv, and Neelapully. Most of the vessels lying near these places were wrecked, and the value of the property lost was estimated at Rupees 10,00,000.

10. *Medical.*—The prevailing endemic diseases of Godavery district are beri-beri and fevers. Cholera is prevalent during the hot seasons of the year; small-pox also occurs at the same periods; fevers come after the cessation of rain. Cattle diseases are also prevalent. Cholera is usually imported by travellers coming from the north. The average annual rainfall from 1875 to 1883 was 36·59 inches; the highest rainfall being in 1878, when 62·29 inches were registered, and the lowest in 1877, when only 27·46 inches fell. The mean temperature (Fahr.) for each month during 1883 at Cocanada was—January 75°, February 78°, March 83°, April 87°, May 90°, June 86°, July 83°, August 84°, September 83°, October 82°, November 76°, and December 72°.

11. *General Administration.*—The Government revenue has steadily increased. In 1860-61, the first year after the present district was constituted, the total revenue amounted to Rupees 42,12,460, and the expenditure on civil administration to Rupees 4,80,170. In 1870-71, the revenue was Rupees 53,10,430, and the civil expenditure, Rupees 2,33,680. By 1875-76, the revenue had reached Rupees 55,88,120, while the expenditure was Rupees 2,86,040. And in 1883-84 the revenue had reached 59,52,361, and the civil expenditure amounted to 2,38,621. For the protection of person and property, there were in 1883-84 40 magisterial and 14 revenue and civil courts in the district. The regular police and municipal police force in 1883 numbered 1,385 officers and men. In 1883-84, there were 948 schools maintained or supported by the State, attended by 25,494 pupils. The administrative head-quarters of the district are at Cocanada; but the Judge's court and the District jail are at Rajahmundry.

HYDERABAD.

[*For description of this native state, see the article on Relations with Neighbouring States and Provinces, Chapter I.*]

JAWAUDIES.

Description.—This is a range of hills, the greater portion of which extending over an area of about 350 square miles, is in the Tripatore talook, Salem district, lying between 12° 15′ and 12° 40′ N. lat., and between 78° 40′ and 79° 6′ E. long. The range consists of two well marked chains of hills running north to south from North Arcot into Salem district connected with each other by a low saddle called Tiripadimode (1,800 feet), but otherwise divided by a deep ravine known as Mamarathoopullam to the north and Garagamundipullam to the south of the connecting saddle,

There is a fair plateau in the centre of the eastern chain and another in the north of the western. The average height above the sea is under 3,000 feet for the eastern chain and over 3,000 for the western. The highest peaks are Sawmymullay (3,400 feet) and Tenmullay (3,600 feet) on the eastern chain, with Cumboogoody and Chembaray (each about 3,900 feet) on the western. The climate is cool and agreeable, but the hills are unhealthy for the greater part of the year, the chief disease being fever, with its sequelæ of dysentery, jaundice, and dropsy. There are numerous ascents, but they are all very steep and rocky and generally impracticable for beasts of burden. The ghaut path rising from the Tripatore plains near Alangauyam to Reddiyoor has now been opened out as a rough cart track. On one of the slopes is a stream possessing the property of covering with petrifaction leaves, sticks, &c., placed in the water. The deposit is a kind of limestone with which the water is impregnated.

2. *Hill Tribes.*—The hills contain 138 villages with a population of 17,799 souls, and are divided into nine 'nauds' or divisions, named as follows:—(1) Nelvausal, (2) Poothoor, (3) Poongamputt, (4) Tenmullay, (5) Moolacaud, (6) Burgoor, (7) Pallappa, (8) Nadooputt, and (9) Bheemacollam. The inhabitants consist chiefly of Malayalies and Poojarries, or Iroolars. The Malayalies do not differ in any way from those inhabiting the Shevaroys, except perhaps in their dress, as they wear the waist-cloth. They style themselves either Vellalars or Patchay Vellalars, the latter being distinguished by the fact that their females are not allowed to tattoo themselves, or to tie their hair in the knot called 'conday.' Both classes migrated originally from Conjeeveram. They do not however intermarry. Polygamy and the remarriage of widows are practised. In their marriage ceremonies this tribe dispense with the services of a Brahmin, and they are indifferent about choosing an auspicious day for the commencement of the marriage, or for tying the "thaly." The dowry of a virgin is Rupees 12-8-0 and 7½ kandagams of shamay or raggy; a widow's dowry is only Rupees 7 and 16 vellams of grain. In special cases a widow is permitted to marry the deceased husband's brother. Should a widow remarry, her issue by the former husband belong to his relatives. The Malayalies bury their dead in nearly every case. No ceremony is performed at child-birth, but the child is named on the fifteenth day. The Malayalies eat flesh, excepting that of the cow. They have large families but fever and small-pox commit ravages among the children. They sell or barter their produce to Lubbay merchants from Tripatore and Vaniyambaudy. The villages are small, comprising from five to fifteen huts built with wattle and thatched with grass; they are usually built in one long structure, sub-divided into partitions for each family. They are fond of animals, and keep in a domestic state pigs, dogs, cats, poultry, &c. They breed cattle, and contract as cowherds to graze large mobs sent up in the hot weather from the plains. They manufacture large quantities of ghee for sale. The Poojaries are few in number, and in a state of quasi-serfdom. They are regarded as the earliest inhabitants of the place. They inhabit the same villages as the Malayalies, and assist them in their agricultural operations.

3. *Forestry.*—The forests are in a measure under control, and since 1866 endeavours have been made to reserve and protect large tracts chiefly on the slopes. The soil of the hills is excellent in many places. Sandalwood, teak and other timber trees grow well. The system of "coomry" and other forms of shifting cultivation has caused much damage to the forests. At certain seasons of the year the hill-tribes fire the jungles. These practices are being restricted. The chief useful trees are the gall-nut (Terminalia chebula); nagamaram (Eugenia jambolana); Caroonganly (Acacia sundra); vilvam (Ægle marmelos); vengay (Pterocarpus marsupium); satinwood (Chloroxylon swietenia); poomarooth (Terminalia paniculata); toombily (Diospyros melanoxylon); Oodoopay (Grewia teliæfolia); Munjacadamboo (Nauclea cordifolia); Pooliya (Tamarindus Indica); Pilah (Artocarpus integrifolia); Cheranncottay (Semecarpus anacardium); cuplipoddy (Mallotus Philippinensis): with teak, sandal and bamboo (both large and small kinds of which are numerous), &c. The forests have suffered from want of protection and the great demand for timber has led to clandestine felling. Coffee is grown on some 18¾ acres in the Nelvausal naud. This is the only registered coffee-holding. Coffee is also found in portions of puttah lands in different villages, but the crop is not there brought specially to the accounts. The principal products of the hills are cumboo, raggy, pany varagoo, cholam, tinnay, wheat, mustard, oolandoo, payar, horse-gram, motchay, toovaray, mootoocottay, coolanel, peyelloo, and gingelly. The total beriz paid by the nine nauds for fusly 1284 (year ending 30th June 1875) was Rupees 9,693-0-4, consisting of "land assessment and road fund," Rupees 9,343-0-4, and tamarind rent, Rupees 350.

JEYPORE.

[*For description of this zemindarry see the foot-note in article on Zemindarries, Chapter I.*]

KISTNA.

Description.—This district lies between lat. 15° 35′ and 17° 10′ N., and between 79° 14′ and 81° 34′ E. Its area is 8,471 square miles; and its population, 1,548,480 persons. It is bounded on the north by the Nizam's dominions and the Godavery district; on the east by the Bay of Bengal and Godavery district; on the south by the Bay of Bengal and Nellore; and on the west by the Nizam's Dominions and Kurnool. The district was formed in 1859 by the amalgamation of the two collectorates of Goontoor and Masulipatam, a small portion of the latter being also assigned to Godavery district. The revenue head-quarters and the seat of the Judge are at Masulipatam.

2. *Physical Geography.*—Kistna district is, speaking generally, a flat country, but the interior is broken by a few low hills, the chief of which are Bellamcondah, Condaveed, Condapilly and Jamalavoydroog, the highest being 1,857 feet above sea-level. The principal rivers are the Kistna, which cuts the district into two portions known as the Masulipatam and Goontoor divisions; the Mooniyair, Palair, and Nagilair (tributaries of the Goondlacumma); and the Kistna; the Kistna only is practicable for navigation. The Colair lake, which covers an area of 21 by 14 miles, and the Rompair swamp are natural receptacles for the drainage on the north and south sides of the Kistna respectively. Colair lake is navigable from June or July according to the setting in of the heavy rains, till February. The geological survey of the district is not yet complete. Iron and copper exist, and at one time the mines were worked, but the smelting of copper is now a thing of the past, and that of iron is also dying out. At some places in the district there are traces of mines which were abandoned long ago. Garnets and small rubies are also found. There are no forests in the district. A revenue of half a lakh of rupees is derived from jungle conservancy, and is spent in planting groves, &c. A few tigers and leopards are found in the Condaveed and Condapilly hills, and in the hilly part of the Noozveed zemindarry and the Pulnaud; antelope, spotted deer and samber are found in the low country. Every variety of the game birds of India, except the pheasant, woodcock, and hill partridge, abounds in the district; and almost all the known inland aquatic birds are found on the Colair lake when it is full. The most deadly of poisonous snakes, the Russell viper (Daboia Russellii), is common about, Masulipatam. The cobra (Naga tripudians), carpet-snake (Echis carinata) and one kind of bungarus (Arcuatus) are also met with.

3. *History.*—The early history of the district is inseparable from that of the Northern Circars. Dharanicottah and the adjacent town of Amravatty were the seats of early Hindoo and Booddhist governments; the more modern Rajahmundry owed its importance to later dynasties. The Chalookyas here gave place to the Ganapaties, who in turn were ousted by the Reddy chiefs, who flourished during the 14th century, and built the forts of Bellamcondah, Condaveed, and Condapilly. On the death of one of these, at the commencement of the 15th century, Devaroyaloo of the Vijianugger dynasty seized the country and held it until Mahomed II (1463—1486), a Mussalman king of the Bahmanee line, wrested this portion of his kingdom from him. The power of the Bahmanee dynasty failed towards the end of the 15th century. Cooly Kootb Shah became king of Golcondah about 1512 A.D., and his kingdom included the whole of what is now the Masulipatam portion of Kistna district. On the other side of the Kistna, Nursinga Devaroyaloo ruled at this

time. His territory, which included Goontoor, was annexed to Golcondah by Kootb Shah's great-grandson, about 1600. This line of kings ended with Tanesha, who was dethroned by Aurungzeeb in 1687. Meantime the English had, in 1622, established a small factory at Masulipatam, where they traded with varying fortune till 1750, when the French ousted them and took possession of the place. In 1759, Colonel Forde, with a force sent by Lord Clive from Calcutta, retook Masulipatam, and from that date the power of the English in the greater part of the district was complete. In 1765, the sunnuds granted to the English by the Emperor of Delhi to hold the Northern Circars were published, and the entire administration was assumed by the Company. In 1766 a treaty was entered into by the Nizam, in which their tenure was admitted; the absolute right of sovereignty was not obtained until 1823.

4. *Archæology.*—The upland tracts of this district abound in stone monuments. In the cairns nothing has yet been found except rude pottery and bone vessels and ornaments, showing a state of civilization less developed than that of many cairn-builders of the south, where metal weapons and utensils occur. Lying on both sides of the sacred Kistna river, this district has been a favourite resort for the devotees of religion from the earliest ages. Amongst the Booddhists the arts seem to have arrived at a pitch of perfection which has never been surpassed, if equalled, in subsequent years. Relics of those days are numerous in the Kistna District, and include the most elaborately sculptured shrine in India, the Amravatty tope. The ruins also of other topes and of Booddhist towns and villages are met with. This period, which is also the first known historical period, the epoch of the Booddhist Salankayana dynasty of Vengy, came to an end about the commencement of the seventh century, when the Chalookyas from Calyauna in the west obtained possession of the country. Being worshippers of Brahmanical deities these succeeded in entirely uprooting the old Booddhist faith, which before their arrival had probably been decaying. Some of their first undertakings appear to have been the excavation of durable temples in the solid rock. The four-storeyed rock-cut Oondavully cave and a large number of other rock-cut and sculptured shrines date from this period. The Chalookyas were principally worshippers of Vishnoo. The celebrated Chinese pilgrim Hwen Thsang visited this country and resided at Bezwada, in a Booddhist monastery, for several months in A.D. 639. The Chalookyas were succeeded in A.D. 1023 by the Cholas, under whom the worship of Shiva received an impetus. They were zealous builders of temples, structural and not rock-cut. A number of these remain, though many have been rebuilt. The Cholas were, about the year A.D. 1228, succeeded by the Ganapaties of Warangal for a period of 100 years till the defeat and downfall of Pratapa Roodra II before the Mussalmans in A.D. 1323. It was during the reign of the grandmother of this king, named Roodramma Devy, that Marco Polo visited the coast at Motoopully south of the river. It has been conjectured, that previous to the visit of Marco Polo there had been Venetian or Genoese settlements on the coast. At any rate the establishment of a colony of certain Europeans on the coast at Frangooladibba (or Farinhidibba) in very early days appears from antiquarian research. They traded in diamonds from the mines on the river, west of Bezwada, and in fine cloths. The Ganapaties were liberal in their support of religious endowments and charities, and their inscriptions abound in the district. The Chola inscriptions are frequent, though less numerous. After the district had passed into the hands of the Reddy chiefs of Condaveed, many important works, such as strong hill-forts, temples, &c., including the small but handsome Shiva temple at Amravatty, were undertaken. The Kistna river has been identified with the Mœsolus of Ptolemy. Mœsolus and the Masilia of the Periplus survive apparently in the name Masulipatam. Partiaul in this district is the site of the old diamond mines, called the mines of Golcondah; and the locality of the story regarding eagles and raw meat in the tale of Sindbad the Sailor given in the Arabian Nights Entertainments. Bezwada was the religious, as Vaigy was the political, centre of the Vengy Kingdom. Regarding Dharanicottah and Amravatty reference should be made to Volume III. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—As in other Madras districts, the population has been up to 1871 roughly counted every five years by the agency of the village establishments. In 1861, it was estimated at 1,296,652. In 1871, the first regular census was taken, and the population in that year was returned at 1,452,374. Of these, 1,373,089 were Hindoos, 78,937 Mahomedans, 90 Europeans, 218 Eurasians, and 36 "others." The number of Native Christians was 7,380. Of the Hindoos, 98,548 were Brahmins; the most numerous Hindoo caste was that of the Caupoos (agriculturists), who numbered 513,609. In 1881 the population was 1,548,480. The number of Hindoos was 1,425,013, that of Mahomedans 87,161, Christians 36,194, Jains 8, "Religion not stated" 104. The language spoken is Teloogoo. The people of the district are generally poor, but an exception must be made in the case of the ryots of the Delta, who are as a rule very well off. Throughout the Delta, the houses are for the most part built with brick walls and tiled or terraced roofs; in other parts, they are of mud walls with terraced roofs. Rice is the food of all classes in the Delta, but only well-to-do people use it in the other parts of the district. The total monthly expenditure of a prosperous shopkeeper's family, consisting of five persons, would be about Rupees 14, and that of an ordinary peasant about Rupees 8. The chief towns are Masulipatam, Goontoor, Bezwada, Juggayapett, Chiraula, Baupatla, Vinoocondah, Dauchepully, Goodivauda, Repally.

6. *Agriculture.*—The area under cultivation in Kistna district in 1883-84 (exclusive of zemindarry estates) was 1,907,802 acres; the untilled but cultivable area was returned at 942,369 acres and uncultivable waste at 1,243,547 acres. The staples raised in the district are rice, maize, raggy, pulses, hemp, flax, cotton, tobacco, gingelly, oil-seeds, chillies, wheat, garlic, indigo, and various kinds of fruit, also cholam. There are three classes of crops grown—namely, poonausa (early crop), sown in May or June, and reaped in September; pedda (great or middle), sown from July to September, and cut between November and February; and peira (late crop), sown in November and December, and gathered in February and March. Rice of all kinds is sown in regar or black soil. The area under rice in 1883-84 was 357,394 acres, or 18·7 per cent. of the cultivated area. The price of the best rice per garce (9,974 lb.) was, in the same year, Rupees 370. The Delta is irrigated by the water of the Kistna river, which is diverted into channels by the anicut at Bezwada. In 1883-84, the area irrigated from this source was 207,550 acres; 7,280 acres were fertilized by the Godavery. Manure of inferior quality is generally used. The district contains numerous wells. The daily wages of coolies and agricultural day-labourers in 1850 were from Anna 1 to Annas 2; in 1876 from Anna 1 Pies 3 to Annas 4; and Anna 1 Pies 4 to Annas 3 respectively. Blacksmiths earned in 1876 from Annas 6 to Annas 12. Bricklayers and carpenters from Annas 4 to Annas 6 and Annas 5 to Annas 8 a day respectively, while sixteen years ago they earned Annas 2 Pies 6 to Annas 4, and Annas 2 to Annas 4, respectively. In 1883-84 skilled labourers—average Annas 7, others Annas 4.

7. *Forestry.*—The forests of this district are somewhat scattered, but the chief areas lie in a block towards the west in the Pulnaud, Vinoocondah, and Sattenapully talooks. The chief tree in these forests is the yepi (Hardwickia binata), but a small amount of teak is found, as also is the condah tungaid. Their present condition is not very good chiefly on account of their having been too much grazed over, but they will improve under protection. The chief forests are those of Ballipully in Vinoocondah and those bordering the Kistna river in Pulnaud and Vencatayyapollem in Sattenapully talook. In the Bezwada and Nundigauma talooks lie the Condapilly and Cottoor forests, with some smaller areas near Bezwada itself. In the Narsarowpett talook is the isolated hill range of Condaveed, now only covered with scrub, chiefly of custard apple (Anona squamosa), but capable of improving; while in the Goontoor talook the chief forest areas are in the plains on old cultivated land and chiefly grow nullatoomma (Acacia Arabica). In the Baupatla talook is a large stretch of forest land near the coast producing soapnuts (Sapindus emarginatus), while a similar area existed in Goodivauda, which, having lately been leased out, has now almost disappeared. About the mouth of the Kistna are large extents of mangrove swamp, the principal tree in which is the mada (Avicennia officinalis), and these forests furnish great quantities of fuel for the supply of Masulipatam. In the talooks of Goodivauda, Bunder, Repally, and Baupatla, many plantations were formed by the late Jungle Conservancy Fund chiefly of casuarina (Casuarina equisetifolia), but also of other species, such as vepa (Melia Azadirachta) and darisha (Albizzia Lebbek) with the palmyra palm (Borassus flabelliformis). Some of these plantations, as was to be expected at the outset, have proved failures, while others, and especially those of Curlapollem and Wardaraiv, may be expected to produce a considerable amount of useful material. Reserves are now being constituted, and it may be hoped that after time has been allowed for the improvement of

growth, the Kistna forests will be most valuable for the supply of the thickly-populated agricultural country of the Kistna delta. The head-quarters of the division are at Masulipatam and ranges have been formed at Bunder, Baupatla, Bezwada, Goontoor, Vinoocondah, Pulnaud and Crossoor.

8. *Commerce and Trade.*—At Bezwada a considerable trade is carried on in dressed hides. In the villages, the chief manufacture is cotton-weaving, sometimes from native hand-made thread. A little silk is made at Juggayapett, and in the large towns there is some trade in copper and brass vessels. Cotton, indigo and castor-oil seed are exported in considerable quantities from the district viâ Cocanada, a far easier port of shipment than Masulipatam. The only business carried on by European agency is a steam cotton-press at Goontoor. Cotton is brought there to be pressed, and thence sent by road and canal to Cocanada, where the purchasers from the west reside. The principal roads are from Masulipatam to Hyderabad; from the Pulnaud viâ Sattenapully to Goontoor, and thence to Bezwada; from Bhadrachellam viâ Tirvoor to Bezwada; and from Nellore district to Pondoogala on the Kistna, and thence to Hyderabad. There is water communication between Bezwada and the Godavery canals. Bezwada was but a little village when the anicut was made; it is now a flourishing town, and the busiest place in the district.

9. *Famine, Flood, &c.*—The first famine recorded was in 1686, but of this there is no detailed account extant. The second, in 1832-34, caused a decrease of 200,000 in the population. It was worst in the Goontoor portion, and was due to the failure of both the monsoons. Prices rose enormously. Public works were opened, but the bulk of the people would not avail themselves of them, and wandered away to other districts. The loss of population was only in a measure due to deaths. Inundations of the sea overwhelmed the town of Masulipatam in the years 1762, 1779, 1843, and 1864; and in each case they were due to a storm wave forced on to the coast by the violence of a cyclone. The reported loss of life has always been about the same, viz., between 20,000 and 30,000 persons. In the last cyclone, the salt water penetrated to a distance of 9 miles inland.

10. *General Administration.*—The total revenue of Kistna district in 1883-84 amounted to Rupees 54,77,213, of which Rupees 40,92,131 was derived from the land. It appears that from the earliest times there were public officers in each village, with duties corresponding to those of a curnum and moonsif at the present day. The Mussalmans first introduced the system of renting out villages to middlemen, or zemindars, originally mere collectors of revenue, who gradually raised themselves to the position of hereditary landowners, and at last asserted their independence of the sovereign power. When negotiations were going on between the Nizam and English, soon after the capture of Masulipatam by Colonel Forde in 1759, it was urged by the Company that as the Nizam had not for a considerable period received any money from the Circars, he might as well let them come to the English, and that he would lose nothing by so doing. When the English undertook the government of that part of the Circars which now comprises the present district of Kistna, the lands were divided into havelly and zemindarry. The havelly lands were treated as Government property, and rented out to the villagers directly by the Collector. With the zemindars, a permanent settlement was made in 1802. No trouble was ever experienced in the collection of revenue from the havelly lands, but the zemindars were continually in arrears with their tribute, and their estates consequently fell under British management. In 1844 an inquiry was ordered, Mr. (now Sir) Walter Elliott having the duty entrusted to him. In his report he recommended the sale of all zemindarries, five in number, the rents of which were in arrears. These estates, accordingly, were bought up by Government; so that from being a zemindarry district, Kistna became almost entirely ryotwarry. On the Masulipatam side of the river the custom was to let the whole village for a fixed sum to the chief inhabitants, or any one who would outbid them, leaving it to the villagers to apportion the revenue and lands among the cultivators. But when Goontoor fell to Government, the strict ryotwarry system of dealing with each ryot for his land was ordered. The revenue was fixed either by measurement or by the yearly outturn of crops. In 1859 the new settlement to ascertain the productive value of the land was begun, and finished in 1873. The assessment then fixed will hold good for thirty years. The number of ryotwarry holdings in 1881-82 was 155,056, owned by 203,206 registered proprietors; average land revenue paid on each holding, Rupees 17 and by each proprietor, Rupees 23. Kistna contains 11 talooks and 2 zemindarry divisions. The number of villages is 1,823. The district is administered by a Collector, with 4 assistants. The police force consists of 962 men, 21 inspectors, 4 sub-inspectors, and 136 head constables, controlled by a Superintendent and his assistant, who reside at Masulipatam and Goontoor respectively. There is 1 district jail at Goontoor and 21 subsidiary prisons. The average daily number of prisoners in 1881 was 223, maintained at an annual cost of Rupees 15,157 or Rupees 68 per prisoner. The number of deaths in jail was nil. The value of jail manufactures was Rupees 864. The country people, save Brahmins and Comaties, are generally uneducated; but in the towns, people gladly avail themselves of the schools that have been established. The Church Missionary Society has a station at Masulipatam and the American Lutherans at Goontoor.

KODAYKARNAL.

Description.—This is a sanitarium on the Pulney Hills, Madura district, in lat. 10° 13′ 21″ N., and long. 77° 31′ 38″ E. The name means 'forest of creepers.' Forty years ago Kodaykarnal had not a human habitation in it, and was only resorted to by Europeans for sport, but as its climate and advantages have become gradually known, it has increased rapidly. It is 7,209 feet above sea-level. There were 30 European and 130 native houses in the beginning of 1884. The population according to a return made in the beginning of December 1883 was 615. The number of the population is however fluctuating. It is high from March to October owing to the influx of visitors and their servants. The public buildings are the American Mission chapel and school, two churches, a Government Post office, dispensary, and a Local Fund chuttram originally intended for a market. A new English church and a Deputy Tahsildar's office are under construction. There is a shop where European supplies to some extent are procurable and with a wholesale license for vend of European liquors. The nearest railway station is Ammayanayakanoor, 40 miles distant. Kodaykarnal is about 112 miles from Trichinopoly, 65 miles from Madura, 52 miles from Dindigul, 143 miles from the eastern coast, and 90 miles from the western coast. The climate is similar to that of Ootacamund, but somewhat milder, and the rainfall is lighter. The site of the settlement is ill-chosen, as many more suitable places exist on the range. The social season consists of the months of March, April, and May, during which period it is the resort of the American residents of the district of Madura, the officials of the district, and others.

KOLLAMULLAYS.

Description.—These hills (sometimes called the 'Chatoorgherries' from their square or 'four-sided' appearance), lie in almost equal portions in the Ahtoor and Namcull talooks of the Salem district; lat. 11° 10′ 30″ to 11° 28′ N., and long. 78° 20′ 30″ to 78° 31′ 30″ E.; estimated area, 180 square miles; general elevation, from 3,500 to 4,000 feet; highest point in the range, Vatakaranamullay in the Ahtoor talook, is 4,663 feet above sea-level. The upper surface of the Ahtoor range is not a flat and regular plateau, but rather an assemblage of deep narrow valleys among ridges and hills which lie inside the apparently level outer line. In the Namcull portion however there is a high and somewhat extensive plateau. There are several ghaut paths, two of which are more generally used and are practicable for beasts of burden; one on the west side, called the Chendamungalam, is the shorter and steeper; the other on the north-east side from Tiroopooly to Moollicoorchy in the plains, is much longer. In general appearance the top of the hills is not unlike that of the Shevaroys. Most of the surface is covered with short, coarse grass, with occasional patches of forest and jungle in the ravines, and evergreen sholahs on the higher hill slopes. The climate is cool, but, except during four or five months in the year, unhealthy both for Europeans and Natives. The geology of these hills is not particularly interesting. They are almost identical in the character

and constitution of their rocks with the rest of the hill ranges south of the parallel of Madras, being built up of very old metamorphic rocks of the same general kind as those of the surrounding low country, i.e., mainly massive syenitoid gneiss. There is only one perennial stream of any size. This has been dammed at the head of a ravine, and forms a reservoir containing large numbers of fish, which, from being continually fed by the priests and devotees, are so tame that they assemble for their food at the sound of a bell.

2. *Population, &c.*—These hills contain 126 hamlets of insignificant size, apportioned amongst seven nauds. The total assessment paid for fusly 1276 was Rupees 8,709 on 6,085 acres. The inhabitants do not belong to any separate tribes, nor do they appear to be exactly like the Shevaroy Malayalies; in fact they are scarcely distinguishable from the people of the surrounding low country, either in language, habits, or dress. Their huts are crowded together, and are built of wattles and daub with a thick thatch. The population is probably denser in proportion to the area than on the Shevaroys or Neilgherries, and, as a consequence, the hills are for the area somewhat more continuously cultivated. The main occupation of the people is the cultivation of grain and the rearing of such cattle as will manure the land. The principal crop is Indian wheat. The bottoms and sides of the numerous valleys are the areas of cultivation, and these have been skilfully arranged in terraces so as to make the most of the water which comes from the higher grounds. Nearly every available piece of ground, according to the present supply of water, has been taken advantage of by the people, and this is perhaps one of the reasons why so few attempts have been made to establish European plantations.

3. *Flora.*—Among conspicuous trees are the 'jacks' (Artocarpus integrifolia), which are very large and fine looking. One of these has been measured thirty-two feet round its trunk at two feet above the ground. Other trees are the wild sago-palm (Caryota urens), the cocoanut palm, the banyan, tamarind, and bamboo. The screw-pine (Pandanus odoratissimus) is very abundant along the low flats through which the main stream flows. The remaining flora is on the whole similar to that of the Shevaroys. The vegetable products of the hills are wheat, mustard, vendayam (fenugreek), a species of black plantain, limes, bitter oranges, jack-fruit, and tamarinds. Besides these, bamboos and honey are collected. Rice is grown in swampy hollows, and cholam, cumboo, tinnay, shamay, aroogoo, and raggy are cultivated for local consumption. The revenue from hill cultivation is not classed as ordinary land-revenue, but is entered in the accounts as ready-money collections. The Malayalies used to be permitted to clear the low jungles covered with brushwood without submitting the customary durkhast (application), and the razeenamah (formal relinquishment of such lands as they do not require) is in their case practically dispensed with. The forests on the Kollamullays have received some protection from the Forest department and yield sandalwood, blackwood, and other valuable timbers. Bamboos are abundant, but teak, once common, is now very rare. The revenue from these forests in 1866 was Rupees 278-1-6, but in 1875 the tamarind trees on the lower slope yielded no less than Rupees 4,436-12-0, and this yield has since on the whole increased. The medicinal plants found on these hills are highly esteemed by native doctors.

KOODIREYMOOKH.

Description.—This is a peak of the Western Ghauts on the boundary between the Cadoor district of Mysore and the South Canara district of the Madras Presidency. On the Mysore side it is also known as Sowse Parwat; lat. 13° 8′ N.; long. 75° 20′ E.; highest point about 6,215 feet above the sea. The Canarese name of the hill meaning "horse's face" is derived from the supposed resemblance of the crest, as viewed from the plains, to the head of a horse. Being some 3,000 feet above the average level of the Western Ghauts in South Canara, it stands out a conspicuous landmark to sailors. The ascent is from the south-east side. The distance from the nearest town, Mangalore, along a good road to the foot of the ghaut is forty-six miles, the ghaut itself being about thirteen miles. The road for the first nine miles as far as the pass leading to the Mysore village of Mulloidy is kept up by the Local Fund Board of South Canara; for the last four miles it is a mere bridle-path. About 500 feet below the crest are two bungalows facing north-east, one belonging to the Basel Mission and one to the officials of South Canara. The hill was first explored from the Canara side about 1850. The ridges and peaks are mostly naked, some showing an outcrop of felspar and disintegrated micacious gneiss rock. The hill-sides are covered with grass and the valleys with fine sholahs. The hill is of value as a sanitarium to officials and residents in the South Canara district, but it is never likely to become a general pleasure-resort. Ten years ago good shooting was to be had, but animals are rarely met with now within a considerable distance of the bungalows. A few fruit trees have been planted, but they are not healthy. Strawberries do fairly and roses excellently. Cinchona grows fairly well. A few tea plants have been put down, but they do not seem to thrive. The rains are very heavy and during them for about four months in the year the hills are enveloped in mist. Occasional showers occur in almost every month of the year. The hills have never been explored by a specialist, so that the flora are as yet undescribed.

KOTAGHERRY.

Description.—This is a hill-station and tea and coffee growing centre in the Neilgherry district; lat. 11° 20′ to 11° 20′ 10″ N., long. 76° 51′ to 76° 56′ E. It is in the Paranginaud, lying at the north-east end of the plateau, 17 miles from Ootacamund, and 12 from Coonoor, at an average height of 6,500 feet above sea-level. Its climate, though less invigorating than that of Ootacamund, is colder and more bracing than that of Coonoor. It is well protected from the south-west monsoon, but in the early months of the year the easterly winds are more felt than at Coonoor. The station, which was founded in 1830, has now about 16 European houses, the principal being Kotah hall, once occupied for several months by Lord Dalhousie, who preferred Kotagherry to the other Neilgherry stations as a residence. The annual rainfall is about 50 inches. Near Kotagherry is the site of the military sanitarium of Dimhutty, long since abandoned. An old ghaut led to the plains of Coimbatore on one side, and to Ootacamund on the other. This was the first road cut by Government for the ascent of the hills, and was completed in 1822 by a corps of pioneers. Originally it started from Shreemoogay, a village two or three miles to the north of Mettapolliem, and its destination was the sanitarium at Dimhutty. The whole distance by it from the plains to Ootacamund is 27 miles. This ghaut was abandoned on the completion of the Coonoor pass. A new road from Mettapolliem was opened in 1875. Its total length to Kotagherry is 20 miles. The gradient is uniformly one in seventeen except the two miles at the foot which are nearly level. It is bridged throughout and in good order. Its average width is fifteen feet and its minimum nine feet. The only public buildings are the church, the dispensary, the chuttram, and the police station. There are also a Roman Catholic chapel and a small hotel. A weekly market is held at Kotagherry on Sunday which is the only day in the week on which estate coolies for whom it is principally intended are free to attend.

KURNOOL.

Description.—This district is bounded on the north by the rivers Toongabudra and Kistna (which separate it from the Nizam's dominions) and by Kistna district, on the south by Cuddapah and Bellary, on the east by Nellore and Kistna, and on the west by Bellary. It lies between 14° 54′ and 16° 14′ N. lat., and between 77° 46′ and 79° 15′ E. long. The area is 7,788 square miles; the population, 709,000. The administrative head-quarters are at Kurnool town.

2. *Physical Geography.*—Two long mountain ranges, the Nullamullays and the Yerramullays, extend in approximately parallel lines, north and south, through the centre of the district. The Nullamullay range is about 70 miles long in Kurnool, and nearly 35 miles broad in the widest

parts. The principal heights are Beirenicondah (3,149 feet), Goondlabrahmeshwar (3,055 feet), and Doorgapoocondah (3,086 feet). There are five plateaux on this range, of which the principal is that of Goondlabrahmeshwar, 2,700 feet high, reached by two paths of easy gradient. On this a bungalow, now in ruins, was built by a former Collector, but the site is by no means suited for a sanitarium. The Yerramullay is a low range, generally flat-topped with scarped sides. The highest point is about 2,000 feet. These two ranges divide the district into three well-defined sections. The eastern section, called the Cumbum valley, is about 600 feet above sea-level, and is very hilly. The Veligonda (2,000 feet) range, the main edge of the Eastern Ghauts, bounds this valley on the east. Several low ridges run parallel to the Nullamullays, broken here and there by gorges, through which mountain streams take their course. Several of these gaps were dammed across under native rule, and tanks formed, for purposes of cultivation. One of the tanks so formed is the magnificent Cumbum tank, closed in by a dam across the Goondlacumma river. It covers an area of nearly 15 square miles, and irrigates about 6,000 acres of land, yielding a revenue of nearly Rupees 60,000 a year. The northern part of the valley is drained by the Goondlacumma, the southern part by the Saglair, a tributary of the Pennair. Both these rivers rise on the Nullamullays. From this valley, the Nundicanama Ghaut (highest point 2,000 feet) and the Mantralacanama pass lead across the Nullamullays to the central division. This is a very extensive, flat, open valley, between 700 and 800 feet above sea level, and covered with black cotton-soil. North-ward, it is crossed by the watershed between the Pennair and the Kistna, and it is drained by the Bhavanausy to the north and the Coondair to the south. In the hot months, the cotton plains present an arid appearance. On the hill-sides, however, green woodlands and private gardens are seen, watered by the streams and springs which rise in the neighbouring hills. The canal of the late Madras Irrigation Company (now the "Kurnool-Cuddapah Canal") is carried right down this valley. On the flank of the hills, bounded by the two valleys, stone implements were recently discovered by the geological officers, and it has been suggested that the people who used them lived on these hills when the valleys were still under water. The western division differs in its features from the other two. It forms the northern end of the eastern edge of the Mysore plateau; and lies 900 feet above the sea at Kurnool town, on its northern extremity, and 1,700 feet at Pyapaly, 4 miles north of its southern limits. It is dotted with bare rocky hills and long ridges, and is drained from south to north by the Hindry, which falls into the Toongabudra at Kurnool. The principal rivers are the Toongabudra and the Kistna, which bound the district on the north. When in flood, the Toongabudra averages 900 yards broad and 15 feet deep. It is usually crossed by means of basket boats, some of which are of large size. In 1860, an anicut or weir was built across the river at Soonkesala, 18 miles above Kurnool town, and a canal dug for the double purpose of irrigation and navigation. After the floods subside, a fine description of melon is grown in the river-bed. Small communities of fishermen, who monopolize the ferrying trade, live in villages on the banks of the river, but they complain that since the construction of the anicut, the fishing industry has fallen off considerably. The Kistna in this district flows chiefly through uninhabited jungles, sometimes in long smooth reaches, with intervening shingly rapids. The average fall of the river is about 1½ foot per mile above the junction and 4 feet below it; the depth in high flood varies from 25 to 40 feet. The Bhavanausy, which rises on the Nullamullays, drains the northern part of the water-shed, and falls into the Kistna at Sungameshwaram, a place of pilgrimage. Below their junction is a whirlpool (chukrateertam) which is regarded as holy by the native pilgrims. The Coondair, a rapid stream, rises on the western Yerramullays. Winding round the hills, it drains the central valley and falls into the Pennair. The Goondlacumma rises in the Nullamullays, and, after receiving two other mountain torrents, passes through the Cumbum gorge, where it is formed into a tank. Emerging again from the tank, and obstructed in its easterly course by the base of the Veligonda range, it makes a remarkable curve towards the north, and flows through Kistna and Nellore districts to the sea. It is rapid, deep, and erosive, often injuring the wells on its banks, and has a minimum flow of 800 cubic feet of water per second. The Goondlacumma and the Saglair are utilized for cultivation by means of rough low dams thrown across them. In the Bhavanausy, temporary dams are constructed every year. The rocks of the district belong to two great formations, both of them devoid of fossils and therefore of unascertained age. The newer or "Kurnool" formation lies unconformably upon the older or "Cuddapah" rocks. In the Kurnool formation, shales, limestones, and quartzites are the prevailing rocks. The limestone makes very good building material, and resembles the Nirjee stone, with which many of the railway stations are built. The limestone found near Kurnool might be used for lithographic purposes. Nearly the whole of the Coondair valley, including the Nundicotcore talook at its head, the lands on the banks of the Hindry, and about one-fifth of the Cumbum valley on the banks of the Goondlacumma and Saglair, are covered with cotton-soil. The minerals found in Kurnool district are diamonds, steatite, iron, lead, copper. Running from the Nullamullays and Yerramullays are several thermal springs, of which the Mahanuddy and the Culwa Booga are sufficiently copious to irrigate a good deal of land. Tigers are numerous in the Nullamullays, and commit great havoc among the herds of cattle pastured in the jungles. Occasionally a tiger is known to stray into the plains. In 1867, a man-eater infested the Nundicanama Pass, and a reward of Rupees 1,000 was offered for its death. The animal was at last killed; but it was soon found that it was not the only one that did the mischief. The usual reward, Rupees 35, for killing tigers was raised to Rupees 300. Since then their numbers have been considerably lessened, and the reward has now been reduced to Rupees 100. The other animals of the district include leopards, wolves, hyænas, foxes, bears, &c. The number of deaths caused by wild beasts in 1883-84 was of human beings 11: of cattle 194. Five tigers and 42 panthers were killed. The amount spent in rewards was Rupees 1,452. Samber, mantjac, spotted-deer, hog-deer, peafowl, jungle-fowl, and spangled as well as common spurfowl, are also found on the mountains. Bison are seen in the northern Nullamullays. Porcupines and pigs abound in the jungles, and commit depredations on the crops. The small game are ducks, partridges, common and painted, snipe, florican, quails, sand-grouse, bustard, &c., antelope, gazelles. In the Toongabudra and the deeper reaches of the Kistna, the mahseer, sable, &c., attain considerable size. A mahseer brought before Dr. Day, when he visited Kurnool, weighed 38 lb., and another was stated to weigh 50 or 60 lb. No revenue is derived from fisheries. Snakes, chiefly cobras, kill on an average 70 people annually. Formerly, small rewards were given for the destruction of snakes, but this practice has been discontinued. Tiger, leopard, and deer skins, and antelope horns, are sold in small quantities.

3. *History.*—The most ancient records show Kurnool as part of the West Coast kingdom of the Chalookyas of Calyanna. Later it became an independent principality. According to some, a prince of Kurnool (Nursinga Row, son of Eeshwara Row) was adopted into the family of Vijianugger, and afterwards raised to the throne of that mighty kingdom. There can, however, be no doubt that Kurnool formed part of the kingdom of Vijianugger. In the reign of Atchoota Deva Rajah, the fort of Kurnool was built, and the country was conferred in Jagheer on a relative named Ramrajah. After the battle of Talicote in 1564, in which the Rajah of Vijianugger was defeated by the allied Mahomedan kings of Beejapore, Golcondah, and Telingana, Kurnool became a province of Beejapore. The first Soobahdar was an Abyssinian named Abdool Wahab, who converted the Hindoo temples into mosques, and built a fine domeshaped tomb in imitation of the one at Beejapore. In 1651, after the conquest of Beejapore by Aurungzeeb, Kurnool was conferred by him upon a Pathaun named Kizar Khan in reward for military services. Kizar Khan was assassinated by his son Davood Khan; and on his death his two brothers, Ibrahim Khan and Aleef Khan, ruled the country jointly for six years, after which they were succeeded by Ibrahim Khan, the son of Aleef Khan, who built and strengthened the fort. The country then peaceably descended to his son and grandson. The grandson, Himmat Khan Bahaudur, accompanied Nazir Jung, the Nizam of Hyderabad in his expedition to the Carnatic along with the Nawabs of Cuddapah and Savanoor. Nazir Jung was there treacherously murdered by the Nawab of Cuddapah, and his nephew was made Soobahdar of the Deccan. But the new Soobahdar failed to satisfy the expectations of the Pathaun Nawabs, who had hoped for an extension of their territory. They accordingly revolted and fled, and in the pursuit, the Soobahdar was killed at Royachoty in Cuddapah by Himmat Khan Bahaudur, who was himself cut to pieces by the infuriated soldiers. Salaubut Jung, a nephew of Nazir Jung, was then made Soobahdar; and on his way back to Hyderabad with Bussy, assaulted Kurnool, and took it in 1752. But he afterwards restored the Jagheer for a sum of money to Moonwar Khan, son of Himmat Khan Bahaudur. A short time afterwards, Hyder Ally overran Kurnool, and exacted

a contribution of 1 lakh of Gadwal rupees. His rule lasted for forty years. In 1800, this district, together with Cuddapah and Bellary, was ceded to the British Government. From that time the yearly tribute of 1 lakh of Gadwal rupees was punctually paid by Aleef Khan to the British Government. In 1815, Aleef Khan died, and his younger son, Moozafar Jung, usurped the throne and seized the fort. Moonwar Khan, the eldest son, applied to the English for assistance; troops were sent from Bellary under Colonel Mariott, Moozafar Jung was expelled, and Moonwar Khan placed on the musnud. On his death without heirs in 1823, his brother Moozafar should have succeeded; but as he was on his way to Kurnool, within the limits of Bellary district, he murdered his wife, and was imprisoned in the Bellary fort, where he died in 1881. In 1838, information reached Government that the Nawab was engaged in treasonable military preparations on an extensive scale. An inquiry showed that enormous quantities of arms and ammunition were stored in the fort and palace, for which no satisfactory explanation could be given. The town and fort were captured after a short fight, and the Nawab escaped to Zorahpore, a small village on the east bank of the Hindry. His foreign soldiers would not allow him to depart until their arrears of pay were satisfied. The Nawab then yielded himself prisoner, and was sent to Trichinopoly, where he was basely murdered by one of his own servants, whom he had charged with a petty theft. His territories, as well as the minor Jagheer enjoyed by his relatives, were confiscated, and all the members of the family pensioned. After the resumption, the country was for a time administered by a Commissioner, and then by an Agent till 1858. In that year Kurnool was constituted a separate Collectorate, with the addition of certain tracts from Cuddapah and Bellary.

4. *Archæology*.—In all probability the tract occupied by this district was covered with thick forest till comparatively recent times. It is, at any rate, remarkable how few inscriptions have been discovered there earlier than the sixteenth century. There are a few, but they are scarce compared with the number in the adjacent tracts of the Kistna and Bellary Districts. As stated above, the country would appear to have been in the possession of the Chalookyas of the Western Branch till the fall of that dynasty. Here and there are found Chola inscriptions, and, later on, inscriptions of the Warangal dynasty. It is probable that the latter never acquired any sovereignty of the country. They seem to have visited the most holy spots, and are credited with the construction of the celebrated temples at Ahobalam in the Sirwail talook. The Vijianugger kings again sought to consolidate their power by a particularly liberal display of charitable gifts to Brahmins and temples, the records of which, on stone and copper, have lasted to the present day. On the overthrow of the Hindoo Raj by the Mussalmans in A.D. 1565 the country fell nominally into the hands of the latter, but the old landed proprietors regained a considerable amount of power. The country is admirably adapted for the construction of almost impregnable strongholds, and there are a great number of fine Poligar forts scattered through the country, especially towards its western limits. The mountain ranges and forest tracts on the east formed a better fortification than the hand of man could devise. The principal temple is that of Shreeshalam, which has always been remarkable for its superior sanctity. The nine temples of Ahobalam are noteworthy, though now much neglected. Owk in the Coilcoontla talook was once the seat of a local line of powerful Hindoo chiefs. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population*.—The regular Census of 1881 returned a total of 709,000 inhabitants, including the wild tribes; average number of persons per house, 4·8. The Hindoos numbered 615,992, of whom 18,843 were Brahmins, 716 Cshatriyas, 31,139 Chetties (merchants and traders), and 80,812 Vellalars or Caupoos and other good castes. The most numerous of the lower castes is the Teloogoos (6,733), who are fishermen, hunters, and palanquin-bearers. Their women sell jungle fruits. Of the Mahomedans, 74,395 are Soonnees, 1,005 Shiahs, and 4 Wahaubies. There are about 400 Wahaubies, and as many Mahdivies, who are considered as fanatics, but live a quiet life. There are only 6 "reported" Jains in the district. The number of Christians is about 11,464, chiefly Roman Catholics, whose principal station is at Poloor, founded in the time of the Nawabs, about 1789 A.D. The Catholics of this station originally belonged to the Caupoo caste, and their conversion to Christianity has not made any material change in their manners and customs. They eat and drink with Hindoos, and in several cases intermarry with them. They have founded a village named Cottaula, and are generally well off. The Protestant stations are Nundiaul, Moottiaulpett, and Kurnool. The former two were founded in 1855, and the last (Baptist Mission) in 1876. The Protestant converts are almost entirely low-caste natives in rural tracts. The language of the district is Teloogoo. In Putticondah talook, a large number speak Canarese. The wild tribes or Chentsoos live on the Nullamullays in small communities called goodems. Each goodem includes several families, and has a portion of the hills allotted to it by common consent. The Chentsoos do not transfer their rights to the hill produce to each other, but occasionally give a portion as dowry to their daughters. They are unwilling to cultivate, but are sometimes employed by the villagers in the plains to watch their fields during the harvest. In former times, they were allowed by villagers a kind of black-mail; but since the introduction of the police force, this has been discontinued, and some of them are employed as ghaut taliaries or road watchmen. During the hill festival they collect fees from pilgrims. Some of them also enjoy inams (free lands) for guarding the jungles. Their language is chiefly Teloogoo, and in this district they do not appear to have preserved any dialect of their own. The principal towns are—Kurnool (pop. 20,329), Nundiaul (8,907), Cumbum (7,170), Goodoor (3,547), Muddikera (6,181), Codoomoor (3,736), and Pyapaly (3,535).

6. *Agriculture*.—Under native government the lands were rented by Poligars, who paid a Peshcush, and sometimes rendered military service. On the transfer of Cuddapah and Bellary, which then included the present Kurnool district, to the Company in 1800, the Poligars were summoned by Major (afterwards Sir) Thomas Munro to make their settlements, but many of them refused to attend, and proved troublesome. The lands were therefore resumed, and the Poligars pensioned. The country was then settled on a quasi-ryotwarry system, but the rates were fixed with reference to the high assessment levied under Mussalman government. This system was tried till 1807, when it was superseded by a triennial, and afterwards by a decennial settlement. The assessment was collected through farmers or middlemen, who fell largely into arrears, and several of them were sent to jail. The renting system was thereupon discontinued; and in 1821 the ryotwarry system was reverted to, but with a reduction in the rates of 25 per cent. on "dry" and "wet," and 32 per cent. on garden lands. Since then no important changes have occurred, except that lands under wells and tanks constructed at private expense have been exempted from extra assessment, and that old well-land (or garden) rates have been assimilated to "dry" rates. In Kurnool Proper, the revenue administration under the Nawabs was conducted without system. The old polliems and zemindarries were arbitrarily resumed, and villages were rented to the headmen, who distributed lands among the ryots according to their means, and raised or lowered rents at pleasure. In the first four years of British rule in this part of the district, the revenue decreased by about 1½ lakh. The Agent proposed to revert to village rents, but the Government negatived the proposal. In the next four years, the revenue rose again to its former level. Where the rates were too high, they were reduced, or unassessed lands were given at lower rates to compensate for over-assessment on old lands, and in some cases remissions were also made, and the tax on special products was abolished, but the high rates on garden and ordinary lands were retained. Prices, however, began to rise, and afforded to the ryots a more certain relief than any reduction in the assessment could give, and saved the necessity for temporary remissions. The latter were accordingly abolished, and the revenue gradually increased. The remaining inequalities of the old rough settlement were finally removed by the new Survey and Settlement in 1866. The land tenures of the district are :—(1) Ryotwarry, i.e., land held direct from Government. (2) Jagheer and Shrotriem, or villages granted to individuals by former governments. (3) Minor inam—lands held rent-free or at favourable rates for personal benefit. If the inam is unenfranchised, it is liable to reversion to Government on failure of lineal heirs. (4) Service inam, granted for the support of pagodas and mosques, or for the benefit of the village community, either rent-free or subject to the payment of a small quit-rent. (5) Joint tenure. Shrotriem villages are generally held in coparcenary. In such cases the ryots have rights of occupancy, and cannot be ejected unless they fail to pay the rent, which may be either a share of the produce, a fixed quantity of grain, or a money payment. (6) Dasbandam—land held on condition of repairing irrigation works, for which the owner is allowed a specified quantity of land or a reduction averaging one-fourth of his assessment. There is not much waste land in the plains, but there is a good deal in the

Nullamullays, which was cultivated in ancient times, but is now overgrown with jungle. In 1854, Captain Nelson of the Madras Invalid Corps settled here to restore a large ruined tank and reclaim the jungle; but after several years' residence, he gave up the attempt. Manure is chiefly used for garden and "wet" crops; but to the west of the Nullamullays, "dry" lands are also generally manured. Lands on which rice, sugar-cane, betel-nut, saffron, raggy, tobacco, and chillies are grown, are irrigated from tanks and wells. Poorer lands are left fallow for purposes of pasture, and are charged the usual assessment, except in villages where they have been abandoned by common consent. Rotation of crops is well understood in the district. The Kurnool-Cuddapah canal intended for the double purpose of irrigation and navigation, runs from Soonkesala to Cuddapah, total length 190 miles; length within the limits of Kurnool district, 142 miles. The nominal width of the canal is 60 yards, and the depth of water 8 feet. The extent of area actually irrigated in 1875-76 was 10,419 acres. In the famine year 1876-77, the extent of land, dry and wet, was 75,620 acres, and the water-rate, Rupees 1,99,002. The water-rate charged for paddy is Rupees 4 per acre, and less for other crops according to the length of time for which water is taken. The area accessible to the waters of this canal in Kurnool district is estimated at 284,206 acres. The area for which distributory channels have been provided is about 146,000 acres. The canal is now utilised for navigation. The chief crops grown in Kurnool are—rice, wheat, and other cereals; gram, cotton, tobacco, indigo, sugarcane, betel, chillies, &c. Most of these are sown in June or July, and reaped in September or October. The staple of the district is cholam (Sorghum vulgare), of which the principal varieties are the yellow and white jonna. The yellow jonna is the early crop, and is sown in red and mixed soils. The white jonna, the later crop, is sown in September or October, and reaped in February and March. Rice is generally irrigated. No improvement has taken place in the mode of cultivation or in the quality of produce, but within the last twenty years there has been a very great extension of the area under the principal crops. Cotton is largely cultivated, but there has been no consequent decrease in the cultivation of food grains; other fibres are cultivated only to a small extent for home consumption. The total area under cultivation in 1883-84 was 1,695,313 acres; the area uncultivated but capable of cultivation was 1,233,816 acres, including forest lands; and the extent of uncultivable waste, 1,567,882 acres. Cholam occupied thirty-seven per cent. of the total cultivated area. The lowest average assessment of rice lands in Kurnool is Rupees 4½ an acre, and the highest average, Rupees 6½. The produce of paddy from an acre of land assessed at Rupees 4½ averages 400 Madras measures, equal to 1,170 lb.; and that from an acre assessed Rupees 6½, 800 to 1,000 measures. The value of the paddy in ordinary years is 24 measures (or 2¾ lb.) for a rupee. A second crop, obtained only in exceptional cases, may be taken as three-fourths of the first crop in quantity, and considerably less than three-fourths in value. The ryots, as a rule, cultivate their own lands. Owners of very large holdings sublet some of their fields and employ labourers on others. The wages of agricultural day-labourers and artisans are usually paid in kind. When paid in cash, coolies receive from Annas 2 Pies 6 to Annas 3 a day; blacksmiths, bricklayers, and carpenters, Annas 4 to Annas 12. The average price of best rice in 1883-84 was Rupees 3 Annas 3 Pies 8 and of cholam, Rupee 1 Annas 4 and Pie 1 per maund of 80 lb.

7. *Forestry.*—There are three forest-clad ranges of hills in the district—the Nullamullay, the Veligonda, and the Yerramullay. All three are conserved by the Forest department, and yield a revenue which in 1883-84 amounted to Rupees 62,000. The Nullamullays contain a very large extent of forest of various descriptions. The main range has its slopes covered with bamboo and deciduous trees, chief among which are the siriman (Anogeissus latifolia) and occasionally jittaigy (Dalbergia latifolia). In the hot weather season trees with showy flowers are conspicuous, such as the gogoo (Cochlospermum gossypium), modooga (Erythrina Indica) and booraga (Bombax Malabaricum), while these brilliant colours are set off by the white-barked smooth stems of Sterculia urens. The valleys contain teak in considerable quantity though not very large, as well as other valuable trees, such as the nellamadoo (Terminalia tomentosa) and yegy (Pterocarpus marsupium), while perhaps most conspicuous of all are the fine ippa (Bassia latifolia), whose flowers are eaten by the Chentsoos, and the pandra (Terminalia belerica), left uncut as it is considered unlucky. On the eastern side yepi (Hardwickia) of good size is not uncommon. Towards the north this tree is also the chief species found in the plateaus which border the Kistna river and adjoin the forest of the Kistna district, but there it is much smaller as the soil is poorer. Near the temple of Shreeshalam, close to the chief gorge of the Kistna river, sandalwood (Santalum album) occurs, but of very slow growth. The Nullamullay forests occupy portions of five talooks, viz., Nundicotcore, Nundiaul and Sirwail on the west, Markapore and Cumbum on the east. A small portion of the Veligonda Hills comes into this district as well as Cuddapah and Nellore, and gives a certain quantity of red sanders, while there are several isolated hills in the Cumbum and Markapore talooks, presenting however but poor growth compared to that of the Nullamullays. West of the Nullamullays and between the towns of Nundiaul and Kurnool and running also southwards into the Cuddapah district are the Yerramullay Hills. These hills have been very much grazed over and the forest growth is chiefly of poor and thorny kinds; it is however expected to improve on the selected areas which will be constituted as reserved forests. The greater part of the Nullamullay Hills is under settlement as "reserved forests," as are some blocks in the Veligondas, but the settlement will take some time. Of plantations there are none, but there are many good topes along the chief roads which in future years will form good camping-grounds. The head-quarters of the division are at Nundiaul and ranges have been made at Cumbum, Markapore, Nundicotcore, Sirwail, Nundiaul and the Yerramullays. Forest houses are in course of construction in the Nullamullays, where they are necessary on account of the bad climate, and export roads will soon be started. Timber is not brought out departmentally but is purchased by contractors who themselves export it to the plain country and the districts of Kistna and Bellary. Minor produce is not much collected, most of it being used locally by the Chentsoos. The main river-crossings from Hyderabad are watched and passes are checked under recently sanctioned rules.

8. *Commerce and Trade.*—The chief manufacture in Kurnool is weaving, which gives employment to 13,508 persons, exclusive of women. The weavers conduct the manufacture in their own houses, partly on their own account and partly for traders who advance money. Iron is worked at the foot of the Nullamullays in Roodravaram and the neighbouring villages in Sirwail talook. The product is "wootz" or "Indian steel" manufactured by an ancient process which was a rough anticipation of the Bessemer process. Of late years, this industry has greatly diminished, native iron being superseded for agricultural implements by imported iron. Diamond mines have been worked from early times in the quartzite beds of the Yerramullay Hills, which till lately were rented out by Government for about Rupees 200 a year. At present the diamond mines are not worked; but a private speculator is mining in certain land near the famous mine of Ramalcottah. Numbers of stones are found, but it is believed that the enterprise has yielded no profit down to the present time. Next to Ramalcottah the most famous mines are those in the Bunganapully State, which have given the recognized geological name of "Bunganapully quartzites" to the stratum in which the diamonds are found. Of the mines in British territory in the Kurnool district recently worked the two best known next to Ramalcottah are in the villages of Moonimadoogoo and Yembye. Quarrying stones is an important industry. Indigo and jaggery or country sugar are also manufactured. Weekly markets are held in most of the towns and important villages. One of the market rules relating to cotton twist, the chief article of sale in these fairs, is worth mention. When a twist is found to contain a less number of threads than the prescribed number, it is broken up by the people and thrown over trees. This summary vindication of commercial morality is sanctioned by custom, and is never appealed against. Cumblies or country blankets of very excellent quality are made in Nundicotcore talook. Good strong tent carpets are manufactured in Cumbum: carpets less substantial but more ornamental are made in Kurnool town. One Mussalman family in Kurnool town weaves very fine muslin turbans, and one man in the same town, the representative of a Mahratta family, imported by the Nawabs to work on ordnance, is one of the best workers in metal in Southern India. One man at Nundiaul and a few families at Nossam still produce artistic work in lacquer of a unique kind. Very good country carts are largely made in Kurnool and Nundiaul. There is little or no export of grain. Salt is imported from the eastern coast, but earth salt is largely manufactured. Cotton, indigo, tobacco, and hides, as well as cotton carpets and cotton cloth, are the chief exports. European piece-goods, areca-nut, cocoanut, and various dry condiments required for native households, are the chief imports. The number of main roads in this district is 13 and their total length is 576 miles.

9. *Famine, Flood, &c.*—The villages on the banks of the rivers Toongabudra and Kistna are occasionally flooded, the most disastrous recent instance being in 1851 when the crops of some villages and the buildings in the lower part of Kurnool town were injured. This inundation was due to a heavy rainfall at the headwaters and within the district. Both Kurnool and the neighbouring district of Bellary suffer from droughts at intervals; and the mass of the population being small landowners, with no reserve capital, the failure of a single monsoon involves general distress. There is no record of the earlier famines; but 1804, 1810, 1824, 1833, 1854, 1866, and 1876 were all years of drought and consequent scarcity. In 1854, the price of cholam rose to Rupees 190 per 3,200 Madras measures, against Rupees 95 in the previous year. In Kurnool, the season of 1866 was not so bad as in Bellary; but owing to exportation, prices rose very high, cholam selling at 8½ measures (about 24 lb.) per rupee, or three times the normal rate. In 1876, both the monsoons failed. The floods of 1874 had seriously injured the tanks and the crops, while the harvest in 1875 was but partial. Prices rose from 18 measures (about 50 lb.) a rupee in July, the sowing season, to 12 measures or 33 lb. a rupee in September or October, the period at which the principal crop is generally harvested; and to 6 measures (famine rates) in February and March (1877), when the later crop is usually cut. In July the price was 3 measures, or about 10 lb. for the rupee. The roads were fortunately all in good order; much grain was imported both by the Government, as a reserve, and by private merchants, from Gooty and Adony, the nearest railway stations. There was no difficulty in procuring carts sufficient to carry into the interior all the grain that the railway could bring from the coast; but this quantity was not equal to the demand, even at famine rates. Relief works were commenced in all parts of the district. The number of persons gratuitously fed in April 1877 was 44,887. Up to the end of July, nearly Rupees 60,00,000 was spent on famine relief in the district alone. Notwithstanding these efforts, the effects of the famine were appalling. The number of deaths recorded from 1st October 1876 to 30th June 1877 was 48,000 as compared with 19,974 in the corresponding period of the previous year; and it is certain that with a system, of collecting vital statistics, which even in ordinary years is admittedly defective, these figures fail to represent the excessive mortality of that direful period. The census of 1881 disclosed the terrible fact that the district lost 26 per cent. of its population by the famine. All fodder and pasturage having failed, large numbers of cattle were driven to the Nullamullays for grazing, but the mountain grass was soon exhausted. The poorer ryots lost all their cattle, while the rich were scarcely able to save one-quarter of their herds. When at last the south-west monsoon of 1877 broke in November, the few cart cattle that survived were sent to field-work, and famine labourers drew the grain carts. This, however, did not last long. The rains again failed, and prices rose once more.

10. *Medical.*—The climate of Kurnool is on the whole healthy. The prevailing winds are west and north-east, and the mean temperature is about 85° F. The rains begin in June, and continue up to September. The total annual fall is about 30 inches, of which about 20 fall in the south-west and 10 in the north-east monsoon. In the villages along the foot of the Nullamullays, a severe type of fever prevails accompanied by enlargement of the spleen. Fever also prevails in certain places (notably in the towns of Kurnool and Cumbum) where a soil naturally malarious is saturated with moisture. In the case of Kurnool town this moisture is derived by leakage from the canal: in the case of Cumbum by leakage from channels taking off from the great tank which commands the ground on which Cumbum and its suburbs stand. The effect of moisture in increasing the pernicious activity of the malaria which (so to speak) is inherent in the soil has been strikingly proved in both these places. In Kurnool the common cold-weather fever of the country was so exacerbated when the land was opened that the hakeems deemed the disease a new one and called it by a new name. On two occasions wet cultivation in the immediate neighbourhood of the town produced a marked increase of sickness: on both (viz., in 1877 and 1881) the stoppage of the practice resulted in an immediate improvement. In Cumbum of late years two outbreaks of extraordinary severity occurred, viz., in 1875 and 1883: and these are the only two years within the last fifteen at least in which water has flowed over the waste weir of the Cumbum tank. Guinea-worm, caused by scanty and bad water-supply prevails in many places:—notably in Markapore talook. Cutaneous diseases resulting from uncleanly habits and coarse and insufficient food deficient very generally in antiscorbutics—are common. Small-pox is still a serious pest, but has been appreciably checked by vaccination. For nearly ten years the district has enjoyed complete immunity from cholera, though the pest raged around it on all sides in 1881. Leprosy is uncommon; the form of it called Elephantiasis being unknown. The population generally, leading simple laborious lives in a bracing climate, and living on dry grains, are, as might be expected, better-grown and more muscular and wiry than the rice-eaters of the low-lying moist regions below the ghauts.

11. *General Administration.*—The total net revenue of Kurnool district in 1882-83 amounted to Rupees 15,84,012, and the total expenditure on civil administration, Rupees 4,68,815. These figures are inclusive of the talooks since transferred. The land revenue in the same year was Rupees 1,34,740; the expenditure under that head being Rupees 1,44,924. The number of ryotwarry holdings in 1882-83 was 82,677 paying a total Government revenue of Rupees 11,10,310. The total police force of the district in 1882-83 was 932 men, maintained at a cost of Rupees 1,37,455. There are, besides the district jail, 12 subsidiary prisons, with an average daily population of 11 prisoners, costing Rupees 1,523, or about Rupees 131 per head. The state of education in Kurnool is backward; only 4 per cent. of the population in 1871 being returned as able to read and write. In 1875, there were altogether 263 schools, with 5,781 pupils, of which 151 were Government schools. The total cost of education to Government was Rupees 31,470.

LACCADIVE ISLANDS.

Description.—These islands, the "Laksha Dweepa" or "Hundred Thousand Islands" (also called the Divy or Amindivy Islands) are a group of 14 islands off the west or Malabar coast of the Presidency, lying between 10° and 14° N. lat., and between 71° 40′ and 74° E. long. Average distance from the mainland, 200 miles. There are 9 inhabited islands, 2 uninhabited, and 3 open reefs; total population in 1881, 14,473; number of houses, 2,443. The northern portion of the group is attached to the collectorate of South Canara, the remainder belong to Ally Rajah of Cannanore, and form part of the administrative district of Malabar. The following are the names of the islands:—

	Population.	Houses.
South Canara Islands—		
Aminy or Amindivy	2,060	319
Chetlat	577	145
Cadamut	245	40
Kiltan	790	195
Bitra—uninhabited	..	..
Cannanore Islands—		
Agathy	1,290	302
Cavarathy	2,016	400
Androth	2,635	372
Caulpeny (Kalooftee of Ibn Batuta)	1,029	127
Minicoy	2,800	437
Soohely—uninhabited	..	..
Total ..	14,473	2,443

The island of Minicoy belongs ethnically and geographically to the Maldivy (commonly called in English Maldive) group attached to Ceylon, and its inhabitants speak a quite different language from that (Malayalam) in use on the Laccadives proper.

2. *Physical Geography.*—Each of the islands is situated on an extensive coral shoal, with an area of from 2 to 3 square miles. Their surface is flat, and no part of any of these formations rises more than 10 or 15 feet above the level of the sea. Around each island a more or less extensive fringe of coral reef extends, broader and more shelving on the west, where the island naturally most requires protection, and narrow and abrupt on the east. The outer edges are higher than the body of these shoals; and extending, as they do, in a semicircle at a distance of 500 yards to three-fourths of a mile round the west, generally enclose a regularly formed lagoon, in some of which the water is so still that in the worst weather coir, or cocoanut fibre, may be soaked without danger of being washed away. The body of the island is the more perfect development of the eastern and protected side of the coral formation. The same feature characterizes all these shoals, and leads to the theory that they rose to the surface in the form of circular or oval shallow basins, and that under the protection of the shoal the east rim gradually developed itself towards the centre and formed an island. This theory is strengthened by the fact, that on some of the islands this gradual increase towards the lagoon is still going on. The receding tide leaves the outer edge of the reef nearly dry, and the tide water passes out of the

lagoon by two or three breaches in the outer rim, which are sufficiently large to admit the light native craft into the natural harbour, several feet deep even at low tide, formed by the lagoon. Under the surface of all these islands lies a stratum of coral or limestone which, varying from 1 foot to 1½ feet in thickness, is seemingly above the highest level of the water, and, being of a piece with the whole formation, stretches uniformly throughout the portion of the shoal which is above sea-level. Beneath this crust is loose wet sand; and by breaking the crust and removing a few spadesful of sand, to allow the water to accumulate, a pool of fresh water may be obtained in any part. All wells, tanks, and pits for soaking cocoanut fibre or coir (where soaked in fresh water) are thus made. The sand gradually presses towards this excavation, and from its constant removal some of the wells and tanks extend under the vault of coral for some distance all round. The water in these wells is quite fresh, and always abundant; but it is affected by the tide, rises and falls several inches, and is said to be not very wholesome. Above the crust the soil lies to a depth varying from 2 to 6 feet, generally composed of light coral sand, which is finer than common sea-sand, but quite as dry. In some parts the soil is entirely made up of small loose pieces of coral without any other soil, a condition which is said to be particularly well adapted to the cocoanut. The surface soil is naturally so barren that there is little spontaneous vegetation except screwpine and other weeds in most of the islands; and although during the monsoon some small crops of coarse dry grains are produced, their scantiness shows that the prosperity of the islands must ever depend on the cocoanut. "Being so low," writes Commander Taylor in his Sailing Directions, "with cocoanut trees only 50 or 60 feet above the sea, these islands are not discernible at any distance, and therefore are commonly and prudently avoided by navigators; but amongst them there are safe and wide channels through which a ship may extricate herself if, by any error in reckoning or otherwise, she gets among them." There are but few animals of any kind. Rats are unfortunately numerous, and prove very destructive to the cocoanut plantations. Tortoises are common, and fish is abundant.

3. *History and Administration.*—For two and a half centuries, the Laccadive Islands formed part of the small principality of Cannanore, having been conferred as jagheer on that family by the Chiracal Rajah (about A.D. 1550). The island of Minicoy was a more recent acquisition from the Sultan of the Maldives. In 1786, the northern islanders revolted, and transferred their allegiance to Mysore. In 1799, when Canara fell to the East India Company, these islands were not restored to the Beeby of Cannanore, but a remission of revenue (Rupees 5,250) was conceded instead; hence the different status of the two portions of the group. From 1855 to 1860, the southern islands were sequestrated for arrears of revenue. This has again happened (1877), and they are at present directly administered by the Collector of Malabar. Such revenue as is derived from the Laccadive Islands has for more than a century been obtained by a monopoly of the staple produce of the group, coir. The entire outturn is claimed by the Government as respects the northern portion of the group, and by Ally Rajah as respects the islands which still remain under native management. The article is paid for to the producers at fixed prices, and is sold on the coast at the market rates; the difference constitutes the revenue or profits of trade of the Government and Ally Rajah respectively. The latter pays a fixed tribute or peshcush of Rupees 10,000 to the Government on account of the islands which he manages. No change has been made for many years in the price which is given by Government for the coir produced in the islands attached to Canara. Payment is made partly in rice and partly in money; and as the price is fairly equitable as compared with the average rates which could be obtained on the coast by the producers, the arrangement is still popular with the northern islanders. On the southern islands, on the contrary, the price has been constantly changed by the native chief, and so reduced as to produce discontent and evasion of the monopoly; other monopolies (cocoanut, cowries, tortoise-shells, and the like) and imposts have been exacted or maintained, and entire alienation between Ally Rajah and the inhabitants has existed for years. In Minicoy, which is the personal property (jenm) of Ally Rajah and is geographically the most isolated of the group, a more profitable arrangement for the tenantry exists, and few, if any, monopolies are enforced. In 1847 the group was devastated by a hurricane. Numerous wrecks of large vessels have occurred on the reefs and on more than one occasion the inhabitants have been hard pressed for food owing to stress of weather. The Canara Islands are managed by a sub-magistrate and moonsif known as the monigar; and the Cannanore group by ameens (revenue agents). The islands are from time to time visited by a European officer. The people are of a peaceable disposition, with some aptitude for self-government, and their disputes are generally settled by their own headmen according to local custom.

4. *Population.*—The entire population numbers (1881) 14,473, of whom 3,672 are in the Government islands. The people are all Mussalmans, and, like the Moplahs of the neighbouring coast, of Hindoo descent. A tradition is preserved among them, that their forefathers formed a part of an expedition from Malayalam which set out for Mecca in search of their apostate king Bharman Permaul, and was wrecked on these islands. The inhabitants certainly remained Hindoos long after their first settlement, and were probably converted to Islam not more than 250 or 300 years back. They retain some of the general distinctions of caste, as well as the law of succession in the female line, with certain local modifications. This law is still strictly adhered to on the island of Amindivy, where distinctions of caste and a more numerous population have been obstacles to the gradual change, by which the custom of regular paternal descent is supplanting the local law of Malabar, on the islands of Cadamut, Kiltan, and Chetlat of the Canara portion of the group; in the southern islands, still under native management, the old custom is more rigidly observed. The proportion of females in the population is unusually large. There are, for the whole group, 111·74 females to every 100 males; and in some islands this disproportion is still more marked; thus in Minicoy, the excess rises as high as 26 per cent. The general disparity is due partly to the emigration of the male population to the mainland for employment, and partly to accidental causes. It is not improbable that to this disparity and to the fact that, at least in Minicoy, nearly the whole of the adult male population is absent on trading voyages from the island for seven or eight months in each year, is due the story to which Marco Polo gave currency, namely, that in the Indian Ocean there was a certain island peopled only by women who were visited during four months of each year by the inhabitants of another island peopled only by males. More than one-sixth of the adult male population of Minicoy perished in a cyclone in 1867.

5. *Customs, Language, &c.*—Monogamy is universal, and the women appear in public freely with their heads uncovered; in Minicoy, they take the lead in almost everything except navigation. The language of the Laccadive group is Malayalam, which is, however, written in the Arabic character; that of Minicoy is Mahl with a mixture of corrupt Malayalam. The headmen and pilots of most of the islands know a little Arabic; and the male inhabitants can generally both read and write. The inhabitants are bold seamen and expert boat-builders. In 1880 the inhabitants of the South Canara group owned 91 large and 297 small boats. They navigate them by European instruments, with the use of which they are familiar. The chief and almost sole cultivation is that of the cocoanut palm; the corresponding sole industry, the preparation and exportation of cocoanut fibre (coir). The soaking of coir and the other processes connected therewith are mainly conducted by the women. The men convey the produce, coir, cocoanuts, jaggery, coppray, venday (a sweetmeat), besides tortoise-shells and cowries, to the mainland; from the northern islands to Mangalore; from the southern islands to the Malabar ports and Ceylon, the Maladives, and Calcutta. Large quantities of superior limes are also brought to the mainland after the monsoon every year. The bread-fruit tree (Artocarpus incisa) is common, and its fruit is better than that produced on the mainland, where the tree is called "Divy halasoo" or "Divy jack." The annual value of the total exports is about Rupees 1,70,000.

6. *Medical.*—The climate is healthy. Cholera has once visited Caulpeny, and formerly small-pox was the most dreaded disease of the islands. The practice, however, of both vaccination and inoculation has greatly reduced the mortality from this cause. Leprosy prevails; but the islanders have traditional sanitary laws, such as separate burial-grounds for small-pox and cholera deaths, and are otherwise careful in their habits. Cyclones, travelling up the Malabar coast, for a time submerge some of these islands; notably the storm of April 1847, which destroyed above 1,000 people and that of 1867 mentioned above.

MADRAS.

Description.—This city is the capital of the Presidency, situated in lat. 13° 4′ 6″ N., long. 80° 17′ 22″ E. These are the bearings of the Madras Observatory; but the town, with its suburbs, extends 9 miles along the coast, and runs 3½ miles inland, covering an area of about 27 square miles. The boundaries are—Shattancaud, Codangiyoor, and Yeroo-

cancherry on the north; Shembiam, Shirloor, Shembadanbaukum, Einavaram, Codambaukam, Sydapett, and Guindy on the west; the Adyar river on the south; and the sea on the east. According to the census of 1881, Madras contained 405,848 inhabitants, living in 48,286 houses.

2. *History*.—The native name is Chennaputnam or the city of Chennappa, the brother of the local chief or naick at the time of its foundation. The name Madrasputnam seems to have been in use almost from the same date and is the name retained by the English. The origin of this name has been much discussed. "Madrissa" a Mahomedan school, has been suggested, which considering the date when the name is first found seems fanciful. "Manda" is in Sanscrit "slow." "Mandaraz" was a king of the lunar race. The place was probably called after this king. In March 1639, Mr. Francis Day, Chief of the Settlement at Armegam, obtained from the representative of the waning power of Vijianugger, Shree Runga Royal, Rajah of Chundragherry, a grant of the site of land on which Madras now stands. A factory, with some slight fortifications, was at once constructed; and, induced by favourable terms, a gradually increasing number of natives settled round the building. In 1653, Madras, which had previously been subordinate to the Chief of the Settlement of Bantam in Java, was raised to the rank of an independent Presidency. In 1702, Davood Khan, Aurungzeeb's general, blockaded the town for a few weeks; and in 1741, the Mahrattas attacked the place also unsuccessfully. The fort was extended and strengthened in 1743, and by this time the city had already become the largest in Southern India. As early as 1690, some attempt had been made to protect Black Town by a mud wall. In 1702, the necessity of improving this was brought home to the people by the advance of Davood Khan, and a tax was raised for the purpose. From time to time, when danger threatened, this tax was repeated, but in periods of peace it was found difficult to draw contributions from the people; indeed, when in 1684 it was attempted for the fort defences, a riot ensued. The result of these imposts was a masonry wall, or "bound hedge," round the north and west sides of the town, with eleven bastions. Many traces of the wall still exist, and some of the bastions have been converted into police tannahs. A monument of this former defence is preserved in the name of the street lying within the line of the west wall, which is popularly known as "Wall-tax Road" to this day. In 1746, Labourdonnais bombarded and captured the fort. The settlement was restored to the English two years later by the treaty of Aix-la-Chapelle, but the Government of the Presidency did not return to Madras till 1752. In 1758, the French under Lally occupied the Black Town and invested the fort. The siege, which has been fully described by Orme, was conducted on both sides with great skill and vigour. After two months, the arrival of a British fleet relieved the garrison, and the besiegers retired with some precipitation. With the exception of the threatened approach of Hyder Ally's horsemen in 1769, and again in 1788, Madras has since the French siege been free from external attack. The town of Saint Thomé, now an integral part of Madras city, was founded and fortified by the Portuguese in 1504, and was held by the French from 1672 to 1674. Sacked by Zoolfakar Khan in 1698, it was occupied in 1749 by the English, who expelled the French priests as political emissaries.

3. *Appearance*.—Although at first sight the city presents a disappointing appearance, and possesses not a single handsome street, it has several edifices of high architectural pretensions, and many spots of historical interest. Seen from the roadstead, the fort, a row of merchants' offices, a few spires and public buildings, are all that strike the eye. The site is so low that it is difficult to realize that behind the first line of buildings lies one of the largest cities in Asia. Roughly speaking, it consists of the following divisions. (1) Black Town, an ill-built, densely-populated block, about a mile square, within the old city wall, with more or less crowded suburbs stretching 3 miles north of the Cooum river. This is the business part of the town, and contains the banks, customs house, High Court, and all the mercantile offices. The last, for the most part handsome structures, lie along the beach. On the sea face of Black Town are the pier, and the new harbour, which is still in course of construction, owing to the delay caused by the sea-inflicted damage during the gale of November 1881. Immediately south of Black Town there is (2) an open space with a sea frontage of about two miles, and a depth of three-quarters of a mile, which contains the fort, esplanade, brigade parade ground ("the Island"), Government house, and several handsome public buildings on the sea face. (3) West and south of this lung of the city, comes a series of crowded quarters known by various native names—Chintaudripett, Tiroovateeshwarampett, Poothoopauk, Royapettah, Kistnampett, and Mylapore, which bend to the sea again at the old town of Saint Thomé. (4) To the west of Black Town are the quarters of Vepery and Poothoopett, chiefly inhabited by Eurasians; and the suburbs of Egmore, Nungumbaukum, Chetput, Pursewaukum and Perambore, adorned with handsome European mansions, and their spacious "compounds" or parks. (5) South-west and south lie the European quarters of Teynampett and Adyar. The city is thus spread over a large area. A very large proportion of the tract of country comprised within the municipal limits of the city of Madras—covering as it does an area of 27 square miles, with 14 villages—consists of the poor rural district, more or less under cultivation, which surrounds the fort and the native town and suburban villages now incorporated within its limits. This fact explains the recurring difficulties of municipal administration, and the constant inadequacy of its finances for the services to be met over so large an area. The moderate resources furnished by a poor and partly rural population have to be scattered over an area very much larger than that included under the management of the wealthy corporations of Calcutta and Bombay. Efforts have however been made by recent legislation (1878 and 1884) to improve the municipal resources. The main thoroughfare of the town is the Mount Road, opened in 1795, which leads from Fort St. George to St. Thomas' Mount. This is a fine street and avenue, but the houses along it for the two first miles are, with a few exceptions, somewhat disappointing. The Cathedral Road, crossing it at right angles, and the Mowbray Road are also wide and well-laid out; the latter possessing an unequalled avenue of banian trees. The Cooum river falls into the sea within municipal limits. Its course is short, and, except during the north-east rains, the volume of water it carries is insufficient to keep open the discharge into the sea. A backwater is thus formed round "the Island" and skirting the fort and Government House grounds, whose stagnant condition, aided by the drainage of one or two suburban villages on its banks, has proved at times a serious drawback to the sanitary condition of the immediate neighbourhood. With rare exceptions, however, the bar of sand at the mouth of the river is breached by the early floods of the north-east monsoon, and open communication with the sea then lasts for some months. The Cooum is in communication with the Poolicat backwater, the Cochrane Canal, and with the Adyar river and Southern Canal system, by the junction canal through Saint Thomé. A considerable area is kept open to the west and north by several large tanks, and the two parks and the horticultural gardens give additional breathing space. The People's Park, which contains a small zoological collection, is the principal recreation ground of the city. Among the buildings most deserving of notice, for their architectural features, are the Cathedral, Scotch Kirk, Government House, Patcheappah's Hall, Senate House, Chepauk Palace (Revenue Board), College, Central Railway Station, and combined Telegraph and Post Office. The two churches were built in 1816 and 1818 by Major de Haviland. Both are, in their general outline, Ionic; and in both, the polished Madras choonam work, which has very much the effect of marble, is to be seen in great perfection. Until quite recently, the material for building in Madras consisted of inferior brick plastered, the plaster being moulded to imitate European detail. A trabeated form of Italian, with wooden architraves, was the favourite style. The only two buildings of note, constructed during this period, are the Scotch Kirk and Patcheappah's Hall, the former noteworthy on account of its boldness of conception and the latter for its beauty and purity of design. Since 1864, when stone from Cuddapah and Sholinghur was first introduced for building purposes, the style of the local architecture has been made to approximate to an adaptation of the Hindoo Saracenic. The new Senate House, with the exception of the Byzantine terminations, is wholly in that style. The Chepauk Palace, formerly the residence of the Nawab of Arcot, and now the office of the Board of Revenue, in its restored appearance, is also a striking specimen of this school. These two buildings and the College have all been erected in the last fifteen years. The principal public statues are those of Sir Thomas Munro, Lord Cornwallis, and General Neill. Fort St. George, commenced in March 1639, by Mr. Francis Day, originally consisted of a factory and other buildings surrounded by a wall, with four slight bastions and batteries, the whole being about 400 yards long by 100 deep. In 1643, it had cost about Rupees 35,000, and was garrisoned by 100 men, the number being reduced a few years later to 26. Between 1670 and 1680, some effort was made to improve and strengthen the position—a necessity forced on the Company by the successive retirement and encroachment of the sea, by the presence of the French at Saint Thomé, and by the threatening advance of Sivajee. Saint Mary's, the first English church in India, was commenced in 1678, and finished in 1680. In 1702, the fort bore its first attack, when Davood Khan blockaded it for three months. In 1723, the Mint was built within its walls; and in 1740, Mr. Smith submitted a scheme for making the fort defensible, and for doubling its enclosed area. This was partially carried out, when Labourdonnais sat down before

the place, and took it after a short bombardment (1746). When, three years later, the English re-entered the fort, they found it greatly improved, the glacis to the north had been made, and the bastions and batteries enlarged. Mr. Robins was now deputed to complete the French work; he adopted Mr. Smith's plans, and for two years 4,000 labourers were continuously employed. Mr. Robins formed the glacis to the west, deepened the ditch, enlarged the old bastions, formed four new ones to the west, to include the new ground taken up on that side, and added new batteries. So that in 1758, when the French returned under Lally, the place, although far from perfect, was fit for Pigott and Lawrence to defend. Immediately after the siege, works were continued under Mr. Call and Colonel Ross, till, in 1787, the fort was completed, very much as it now stands. Although suitable for the purpose for which it was originally designed, it is not tenable against modern artillery, and its walls in many places are in disrepair. Within it are nearly all the principal Government offices—the Secretariat and Council Chamber, the military headquarters, arsenal, and barracks. The arsenal contains many trophies of the wars in which the Madras army has been engaged. In St. Mary's Church are buried the missionary Schwartz, Sir Thomas Munro, Sir Henry Ward, and Lord Hobart. The most important offices of the Presidency and the headquarters of almost every department are located in Madras. The headquarters of the Eastern military district is stationed here, with a garrison of 1 European and 2 Native infantry regiments, ½ battery of garrison artillery and the Body-guard of the Governor (100 sabres). At St. Thomas' Mount are 2 field batteries, ½ a garrison battery of artillery, and a detachment of Native infantry. Including these, the garrison of Madras is about 3,250 strong, of whom 1,134 are Europeans.

4. *Population.*—The old estimates of the population of Madras were much deranged by the results of the censuses of 1871 and 1881. In 1763, it was calculated at nearly a million, and subsequently the official estimate fell to 750,000. An enumeration in 1822 returned 470,000; another in 1866, 450,000. The only censuses on which reliance can be placed are those of 1871 and 1881 which respectively returned 397,552 and 405,848 inhabitants. The number of houses, according to the 1881 census, was 64,550, of which 48,286 have been classed as "occupied." The area of the town being taken at 27 square miles, this gives an average of 15,031 persons and 2,391 houses per square mile. But as about 3½ square miles consist of parks, esplanades, &c., these figures understate the actual density of population, which varies from 93628·572 per square mile in the second division to 2781·70 in the fourth. The proportion of males to females is about 100 to 102·8. The results of the recent census show that out of the total population, 315,527 are Hindoos, 50,298 Mahomedans, 39,631 Christians and 392 of other religions, the proportion per mille being respectively 777, 124, 98 and 1. The proportion of Christians is higher than in any other part of the Presidency and that of Mahomedans is higher than any where but Malabar. Since 1871 the Hindoos have gained 2 per cent., Christians about 7 per cent., while Mahomedans have lost 1⅓ per cent. The mixed class of Eurasians is composed of 12,659 persons, of whom 6,100 were males and 6,559 are females. Since 1871 these have increased by 5¼ per cent. The number of Europeans returned in 1881 is 3,205, or 11½ per cent. fewer than in 1871. Of these 2,004 are males and 1,201 females.

5. *Revenue.*—The quit-rents of Madras were originally collected by the Conicopolies, and paid directly to the general treasury. Later, when dues were charged on betel, tobacco, and other commodities at the chowkies in the "Bound Hedge," an officer, called the "Land Customer," was appointed to superintend collection of these dues, as well as of the quit-rents, spirit revenue, and numerous other charges, known by the generic name of moturpha. In 1798, the "home farms" (certain villages of the jagheer) were added to the charge of this officer, who shortly afterwards was designated Collector of Madras. In 1860, the public revenue of Madras city (excepting sea customs) was transferred to Chingleput (then called Madras) district. This has, since 1870, been altered, and all the Government revenues, including sea customs, within the municipal limits are now entrusted to the Collector of Madras.

6. *Municipal.*—The earliest measure of municipal government consisted of the appointment of watchmen and the imposition of a scavenger cess in 1678. At various periods, small cesses on trades and commodities appear to have been levied for town purposes, but whether at any time the quit-rents were directly devoted to similar objects is not clear. The "Conicopolies' Fund" was assigned in 1735 for the maintenance of bridges and roads, and a little later this was augmented by the profits on public lotteries. From 1688 the Mayor and Corporation had control of municipal work and funds. In 1793, an Act allowing the imposition of municipal taxes was passed; and in 1798, a committee was appointed for the better administration of the town. Rules for markets and public conveyances and a provision tariff were drawn up by this body, and at the same time a portion of the excise revenue was devoted to municipal purposes. No trace of further municipal legislation is to be found till 1841; but since that date, there have been numerous enactments on the subject. Municipal Acts were passed in 1856, 1865, 1867, 1871, 1878, and 1884. In 1867, the principle of representation was first asserted. At present the annual income of the city from taxation is about seven lakhs of rupees, or an incidence of Rupee 1 Annas 12 per head of the population—not an excessive charge when it is considered that this has to provide for the sanitation of 400,000 inhabitants spread over 27 square miles, to maintain and light some 256 miles of road, to furnish pure drinking water, to contribute to schools and hospitals, and to provide a system of vaccination, &c. The commission consists (1884) of a paid President (with other officers) and 32 honorary Commissioners, three-fourths elected and one-fourth nominated by the Governor in Council. Its revenue is derived from the following sources:—

	RS.
Tax on professions, &c.	50,000
House and land tax	3,45,000
Water-tax	1,34.000
Lighting-tax	42,000
Tax on carriages, carts and animals ..	70,000
Tolls	42,000
Tax on liquor shops	13,500
License fees	9,000
Rents	37,500
Miscellaneous receipts	87,000

The expenditure is in the following proportions.

	RS.
Roads	1,04,000
Water-supply	25,000
Other public works	73,000
Education	15,000
Medical	39,000
Sanitation	2,65,000
Lighting	36,000
Miscellaneous	32,000
Establishment	1,04,000
Interest and Sinking Funds of Debt ..	1,33,000

Notwithstanding the difficulties of narrow means, the commission has given the city a comparatively pure water-supply at a cost of about Rupees 15,45,000. To effect this work two reservoirs of native construction were enlarged so as to contain 102 millions of cubic yards; and their supply was improved by constructing an anicut or weir across the Corteliaur river, with a supply channel to the upper part of the two reservoirs and a connecting channel between them. The upper reservoir is called the Cholavaram tank. Its area is 1,543 acres; and the depth of water at the lowest sluice is 20 feet. The other reservoir is the Red Hills tank, with an area of 4,869 acres and a maximum depth of 21 feet. The water is conveyed to Madras in an open high level channel, 7 miles long, with strainers at both ends. This channel terminates with a masonry shaft from which the water is delivered at a level of 29½ feet above mean sea-level into a distributing system of cast iron pipes. The pressure is sufficient to raise the water 8 or 10 feet above ground level in a large portion of the town. The annual consumption is about 5,000,000 cubic yards. In addition to supplying the city of Madras with water, the Red Hills tank is largely drawn upon for irrigation. An effective system of drainage foremost among the many wants of the city has been brought into operation over a large area of Black Town and is being pushed rapidly on towards completion.

7. *Port.*—Notwithstanding its exposed situation, Madras ranks third among the ports in India, in respect of the number and tonnage of vessels calling and the value of its imports and exports. The average number of vessels for the last 10 years is 1,056 of 697,135 tons. In 1876-77, the famine increased the number to 1,685 ships of 871,774 tons —exports, Rupees 3,40,56,160, imports, Rupees 7,58,11,330. The average value of exports and imports for these 10 years as well as the amount of customs duty thereon and port dues collected are respectively Rupees 3,52,11,488, Rupees 5,26,96,704, Rupees 12,59,059 and Rupees 80,493. The port trades with every part of the world, exporting coffee, cotton, grain, hides, indigo, oil-seeds, dye-stuffs, sugar, and horns; and importing piece-goods, iron and other metals, and all kinds of European manufactures. It is regulated under Act XII of 1875 and the Madras Port Dues Act, 1881, and administered by a Master Attendant, with a deputy and two assistants. At present, the landing and shipping of goods is effected partly by lighters to the pier-head and partly by the old masulah boats. There are 60 of the former and 100 of the latter on

the register, besides 4 water, 4 cooly and 7 jolly boats. The pier, which is 1,100 feet long by 40 feet wide, was commenced in 1859 and completed in 1862 at a cost of Rupees 11,00,000, and although but a poor substitute for a harbour, it was found very useful during the famine of 1877-78, as many as 12,000 bags of rice having been landed there in a single day. It has been twice breached by vessels drifting through it, and repaired at a cost of Rupees 4,00,000. The harbour walls or piers which were commenced in 1876 were completed in September 1881 and the harbour was then fully opened to the shipping. On the 12th November 1881, a storm occurred, which was disastrous to the harbour works, nearly the whole of the curved arms being destroyed. The re-construction of the harbour is now under consideration. The harbour when complete will be an enclosed structure formed by running out two solid piers from the shore 500 yards north and south of the iron pier to lengths of 1,200 yards or into 7½ fathoms water, turning at that point to form an enclosure with an entrance in the centre 550 feet wide. These piers will enclose a space 1,000 yards long and 830 yards broad at a maximum depth of 7 fathoms of water. The area which will thus be available is calculated to afford shelter to 13 ships of various sizes, ranging from 4,000 to 700 tons. As however the harbour in its present condition has sufficiently advanced to be of considerable value to the trade of this port, it has been thought necessary that 'ad interim' arrangements should be made for the levy of dues in consideration of the advantages and facilities afforded. Accordingly harbour dues have been levied since April 1884 under Madras Act VI of 1882 under the supervision of the Master Attendant. The lighthouse, a Doric column 125 feet high, contains a first-class white flashing catadioptric light. It was erected in 1844 and is visible from a ship's deck 15 miles at sea. The roadstead of Madras, like the whole line of the western coast, is liable to be swept by hurricanes of irresistible fury, which occur at irregular intervals of years, generally at the beginning of the monsoons in May and October. The first recorded cyclone was in October 1746, a few weeks after the fort had surrendered to Labourdonnais. A French fleet then lay at anchor in the roads. Five large ships foundered with 1,200 men on board; and scarcely a single vessel escaped with its masts standing. Perhaps the most destructive of these storms occurred in May 1872. On this occasion the registered wind pressure reached a maximum of 53 lb. to the square foot. The shipping in the roads did not receive sufficient warning to allow them to slip their cables and put to sea. In the space of a few hours, 9 English vessels, with an aggregate tonnage of 6,700 tons, and 20 native craft were driven ashore. Fortunately day broke when the calamity was at its height; and the rocket apparatus, skilfully used, saved the lives of all except 19 men. In May 1874, another cyclone broke on the Madras coast, but the ships were warned in time to put to sea and gain an offing. The most recent of these periodical hurricanes was in November 1881. A carefully prepared code for the guidance of all departments on the occurrence of a hurricane has been sanctioned by Government.

8. *Industries.*—The trade of the town does not depend on any special local manufactures or produce. Such industries as once flourished—weaving, for instance—have decayed, and no others have grown up to replace them. As elsewhere in India, spinning and tanneries companies have recently been formed, but their effect on local trade has not as yet become sufficiently perceptible.

9. *Communications.*—As the capital of Southern India, Madras is the centre on which all the great military roads converge. From the three principal of these (No. I running west, No. VI north to Calcutta, No. VIII south to Cape Comorin) branch all the Great Trunk roads, which, with their massive bridges and smooth hard wheel-ways, are among the greatest monuments of English rule. Madras is also the terminal station of two lines of railway, the Madras line and the Madras and Tuticorin section of the South Indian Railway. The first striking across the peninsula, links it with the west coast at two points nearly 600 miles apart—Bombay and Beypore—and by branches with Hyderabad, Bangalore, the Neilgherries, and the Ceded Districts; the second brings the capital within easy access of all the southern districts. The original terminus of the Madras line at Royapooram, a northern suburb of the city, was opened for traffic in 1856. It has been used for offices and stores since the present central station was opened in 1873. Besides the two stations mentioned, there is a goods station at the Salt Cotaurs, and a suburban passenger station at Perambore. The South Indian Railway from Madras to Tuticorin was opened for traffic between 1st September 1876 and 1st July 1879. The terminal station of this line at Madras is Egmore although the line originally laid out as far as the beach to facilitate harbour works operations is also utilized for passenger and goods traffic. The Buckingham canal, which passes through an outlying part of the city, connects South Arcot district with Nellore and the Kistna and Godavery system of canal navigation. This long-delayed project was undertaken as a famine work.

10. *Education, &c.*—According to the census of 1881, over 24 per cent. of the population can read and write. Connected with the Educational Department there are within the city 495 schools teaching 26,234 pupils; of these 145 are girls' schools, with 6,784 pupils. The only secular arts college in Madras is the Presidency College, which has a staff consisting of a Principal, 6 Professors, 1 Assistant Professor, and 3 Assistants. There is also a Law class under 2 Professors, and a school department about to be abolished, with 4 English Masters, besides Moonshees, who teach Sanscrit, Tamul, Teloogoo, Canarese, Malayalam, Persian and Hindostany, and a Superintendent of Vernacular literature. A well-equipped laboratory has been added to the institution. Of the higher class schools the Medical, Engineering, the Doveton, St. Mary's, Patcheappah's and the Madras Christian Colleges are the most noteworthy. Special institutions include three Normal schools, a School of Arts, an Industrial School, and a School for Ordnance Artificers. In 1882-83 the total number of books registered at Madras was 711, of which 153 were original works and 97 were in English. Exclusive of the Government and Lawrence Asylum presses, there were 33 English and 53 Native presses, besides 15 lithographic presses; and, exclusive of periodicals, 9 English and 17 Native newspapers published. There are 3 bishops (1 English and 2 Roman Catholic); 15 Anglican churches, including the Cathedral; 2 Roman Catholic cathedrals, and 13 churches; 3 Scotch churches and 8 dissenting chapels, besides numerous meeting-houses and mission school-rooms used for prayer. There are also 10 Christian cemeteries. The first English church, St. Mary's in the fort, built in 1680, has already been referred to. The Cathedral has a fine organ, a good choir, and a peal of bells. There are many missionary societies, including the London, the Church, Wesleyan, Lutheran, American, 2 Scotch, and a Baptist Mission; Bible, Gospel, Christian Knowledge, and other Book Societies. In connection with the first two societies, 3 additional bishops have recently been appointed—2 in Tinnevelly, and 1 in Travancore.

11. *Judicial.*—In old Madras, all criminal and civil disputes were finally referable to the Council; but from the commencement of its history, the "Justice of the Choultry," an unpaid commission, consisting partly of natives, had jurisdiction in larcenies, minor misdemeanours, and petty civil causes, and also controlled the police. More serious cases were reserved for the decision of the Chief and Council. In 1688, the Mayor's Court was created with jurisdiction in civil and criminal cases. It held sessions for cases remitted by the Justices, and appeals lay to the Admiralty Court created in 1684. In 1726, the powers of the Mayor's Court were extended by Royal Charter, a Small Cause Court was created, and for a few years was presided over by the Sheriff. In 1798, the Mayor's Sessions were replaced by a Recorder, and in 1801 by the Supreme Court. In the following year, the Sudder and Fowjdarry Court was established by Regulation as the chief court for all cases beyond the limits of the original jurisdiction of the Supreme Court. In 1862, the Supreme and Sudder Courts were merged in the new High Court, created by Royal Charter, which possesses appellate jurisdiction, and also original jurisdiction, both civil and criminal, throughout the Presidency. A final appeal in important civil causes lies to the Judicial Committee of the Privy Council. The Small Cause Court of four Judges and the four Presidency Magistrates, are the ordinary courts of first instance for civil and criminal business.

12. *Police.*—When the whole territory lay within the "Bound Hedge," the peace of the city was confided, after the fashion of the villages of the country, to a hereditary watchman paid by land grants, thereafter pertaining to the office. Pedda Naick, the first of these taliaries, has left his name to a large quarter of the town, built on his inam lands. In 1640, he had to find 20 peons for police work; in 1659, the number was raised to 50. In 1686, this Naick or "Madras Poligar," as he is styled in some old papers, received a cowle conferring increased emoluments, including the right to tithes upon the produce of certain trades, and a watch-tax on houses, called the "revenues from the sea-gate, choultry, and bazaar," in consideration whereof he had to furnish an increased force, as well as to provide escorts for officials, and to execute the processes of the justices. Except a mention of Pedda Naick riding at the head of his peons at the ceremony of installing the Mayor in 1727, the history of the city police for 100 years is not traceable. In 1798, when a committee assembled to devise measures of municipal reform, Mr. Tolton sat, ex-officio, as secretary to the police committee. It is therefore probable that the poligar had been for some time under administrative control. His office was abolished in 1806, and a regular town police, which however retained most of the methods and persons of the old system, was formed. This, in 1868, gave place to a remodelled force on the same

lines as the provincial constabulary. The present police force consists of a Commissioner, one Deputy on Rupees 750 and one Assistant on Rupees 350 rising to Rupees 400, and about 944 subordinate officers and constables, including mounted, jail, and marine police as it stands reduced at present.

13. *Institutions.*—Besides those already mentioned, the following institutions deserve notice:—The Observatory, the Museum, the Literary Society's Library, the Friend-in-Need Society, the Monigar Choultry, and the hospitals. The Observatory, from whose meridian all India takes its time, was established in 1792, Mr. Goldingham being the first astronomer. It originated in a small private observatory started in 1787 by Mr. W. Petrie, a scientific Member of Council. It now contains a fine collection of instruments, including a large new equatorial and a very efficient transit circle. Besides the regular meridional observations, the attention to casual phenomena, and the maintenance of a meteorological register, this observatory has conducted much special work of permanent value in astronomical annals. The Literary Society and Auxiliary of the Royal Asiatic Society possesses a library of over 17,000 volumes. In 1851, the society presented its collection of geological specimens to Government, which formed the nucleus of what is now known as the Government Central Museum. The natural history section embraces an extensive collection of birds, reptiles, fish, shells, and insects; besides a large herbarium and numerous mineralogical and geological specimens. There is also a very interesting collection of gold, silver, and copper coins, besides numerous specimens illustrating the natural resources and manufactures of British India, and the manners, customs, and antiquities of the country. Attached to the museum is a reading-room and general library, and also a scientific library, devoted to natural history. Altogether, there are upwards of 7,000 volumes, besides a very extensive collection of patent office publications. The Friend-in-Need Society, supported by voluntary subscription, supplemented by a Government grant, discharges, for destitute Europeans and Eurasians, the functions of a poor-rate. It was founded in 1807, and has ever since been a useful and well-supported institution, finding work for those able to do it, and gratuitous relief for the old and infirm. The Monigar Choultry is one of the oldest as well as one of the most creditable of Madras institutions. Founded in 1808, it has been maintained by private subscription and Government grants in a state of great efficiency. It affords shelter, food, and clothing to the native poor and infirm, and contains many wards, named after their founders. It has at present accommodation for 250 inmates and beds for 111 in its infirmary, besides affording out-door relief in 10,000 cases annually. A small lying-in hospital was added to the institution on the 14th May 1879, containing two wards for eight beds each and labour-room attached to each ward; this hospital was built by P. S. Ramasawmy Moodelliar and endowed with a sum of Rupees 24,000 which has been amalgamated with the general funds of the choultry. The hospital gives relief on an average to 450 women annually, of which number 150 are women of caste and is a great boon to the population of the town and the north end of the city. During the famine of 1876 and 1877 the choultry and hospital afforded great help to Government by accommodating and otherwise providing for the famine-stricken population who resorted to the city for relief. Advantage has been taken by Government of the arrangement of the hospital into separate wards for the accommodation of medical and surgical patients, lying-in women, contagious diseases wards, and a dispensary for out-door relief; and a school for medicine has been formed for the professional education of the entire Hospital Assistant class of Government subordinates. The school was opened on the 1st October 1877 and 140 pupils have passed out qualified for the public service. Private students are also admitted on the payment of an annual fee of Rupees 10. The General Hospital has wards containing 240 beds, exclusive of 80 beds in the annexes for contagious cases, and possesses all the appliances and accommodation of a first-class hospital. Its staff consists of a physician and 2 surgeons (one of whom is resident), 5 medical subordinates, a matron, 13 nurses, and about 40 attendants. Private rooms are provided for invalids who can afford to pay. A lying-in hospital, a hospital for women and children, and several dispensaries, supplement the usefulness of the larger institution.

14. *Climate, &c.*—Madras is not ordinarily an unhealthy town, either for Natives or Europeans. Its sea-breeze and dry soil appear to more than compensate for the lowness of the site. The temperature is high all the year round, but there are fewer sudden alternations of heat and cold than in most places in India. The mean temperature in the shade ranges between 74° and 87° F.; the extremes being 67° in January and 93° in June. The death-rate averages 40 per thousand per annum. It usually increases during the cold and rainy seasons, and is at its minimum during the dry hot months of April, May, and June. The population is liable to periodical visitations of cholera and small-pox. Elephantiasis and leprosy are endemic diseases on the coast-line; the former is generally seen in the form known as "Cochin" or "elephant leg." The land rises slightly as the distance from the sea increases, but in no part of the municipal limits is the elevation more than 24 feet above the sea, while in many thickly populated neighbourhoods the levels are so low as to offer serious obstacles to drainage. The average rainfall over the town area is nearly 48 inches in the year. The chief outlets for the discharge of excessive rainfall are the Cooum river, the main drain of Black Town, and two minor channels between the Cooum and Saint Thomé. The heaviest rainfall usually occurs during the north-east monsoon, as much as 18 inches having been known to fall within twenty-four hours. The locality of the town is liable to prolonged periods of drought as well as to heavy floods.

15. *Neighbouring Places of Resort.*—The following are notes condensed from the "Guide to the city of Madras and its suburbs" (Higginbotham, 1881). *Red Hills.*—The native name of this locality is Coil Mathavaram. The village lies in a north-westerly direction about 10 miles distant from Madras. The English name is probably derived from the colour of the soil and the undulating appearance of the country, as there are no hills here in the ordinary acceptation of the term. A large lake was the centre of attraction in former times, and in its vicinity were several houses belonging to inhabitants of Madras. The aspect of the place has now, however, entirely changed since it has become the fountain head of the Madras Water-works. Before railroads made it an easy matter to go for change of scene and air to Bangalore, the Neilgherries, or Shevaroys and other outlying salubrious stations, the Red Hills and Ennore had strong attractions for the citizens of Madras. They were glad occasionally to escape from the heat and dust of the city and to enjoy the fresh breezes, boating, bathing, and other amusements available at these two places. A few gentlemen even resided permanently there, coming into Madras during the day for business and returning at night. *Ennore.*—This place is about 10½ miles from the fort in a northerly direction, and may be reached either by a boat plying over the Buckingham's canal, or by the ordinary carriage road through Tondiarpett and Trivettore. Its Tamul name is Cuttiwaukum. Its chief attraction is a large salt-water lake in which visitors bathe, fish and sail. It has been the scene of many regattas. The gayest time that Ennore has known was perhaps when Sir Henry Pottinger was Governor of Madras. He had a great liking for the place, and built there a commodious bungalow for his own use, which he generally occupied during the hot season. Madras society then frequently visited the place, and the Ennore Club House was seldom unoccupied by its owners, who were always notable for their hospitality. Since then, and the opening of the railway, the tide of fashion ebbed away from Ennore and things assumed their old state of comparative quiet. Public favour however is again inclining to this delightful retreat and new houses are springing up here and there. The extensive casuarina plantations that have of late years grown up around the place have much altered its aspect. The lake contains excellent fish and oysters, and salt of a very superior quality is gathered from numerous pans, situated close to the creeks or inlets from the sea. The crystals are large and clear and the quantity gathered annually is about 36 to 40,000 tons. It is the best produced in the Presidency and is shipped in large quantities to Calcutta and other ports. Further north lie Poothoopauk and Chintamany. The latter place contains the remains of a Hindoo temple almost entirely embedded in sand, and the former some large plantations of casuarina belonging to private individuals. *Poolicat.*—This village is an old Dutch settlement formed about 1609. It is chiefly inhabited by Lubbays and low caste Hindoos. The wealthier inhabitants carry on an extensive trade with Singapore and Malacca and the common people are chiefly fishermen. Scarcely any trace is left of the old Dutch fort, but the ancient burial-ground, preserved from decay by Sir C. Trevelyan when Governor of Madras, contains many well-cut tombstones, some of them nearly 300 years old. Roman Catholics resort to this place in great numbers on certain feast days. The distance from Madras is by canal 25 miles. Visitors at Ennore make excursions to Poolicat by boat, a pleasant journey of five or six hours. The lake which lies between Coromandel and Poolicat, named after the latter place, is a beautiful expanse of water, about 37 miles in length and from 3 to 11 in breadth. *Coromandel.*—This retreat is separated from Poolicat by the lake just named and is bounded on the east by the sea. It is a very pleasant place, and like Ennore is visited during the hot season.

The etymology of the name of this place has been variously explained, but it appears to be a corruption of karimanal (black sand), the black sand so extensively used in former days in public offices and by the people, instead of blotting paper. "Coromandel," as applied to the coast, is derived from Cholamundalam, i.e., the region of the Cholas, an ancient dynasty, who at one time inhabited this part of India. There are a few houses here furnished and favourably situated, which may be occupied on payment of a monthly or daily rent. The population consists almost entirely of low caste Shoodras, Pariahs and Lubbays numbering in all above 3,000. *Little Mount.*—About four miles south of St. George's Cathedral and near the Marmelong bridge is a spur forming what is familiarly known as the Little Mount, where, tradition says, St. Thomas, the Apostle of India, was martyred. This, however, appears to be problematical. On the Little Mount stands a Roman Catholic church, where a festival in connection with it is annually celebrated. A great throng of people, composed of the middle and lower classes, generally collects to witness the usual church processions, &c., which appear to cause great excitement among the rabble. Under the arches of the Marmelong bridge may be observed various groups of excursionists, who make this their temporary abode until the close of the festival, which as a rule lasts for a period of ten days. There is not, however, anything historical attaching to the place and beyond the festival above referred to it is of little or no importance. *Guindy.*—A little further south lies Guindy which may be reached by a short drive from the Marmelong bridge. At Guindy is the Governor's country residence. It is in many respects superior to the Government house at Madras, and owes its modern form to Lord Elphinstone. The park surrounding Government house is very extensive and admirably laid out. A broad and well-formed road runs direct from the main entrance, which presents the façade to full view. At Guindy is the Madras Race Course, one of the best in Southern India, and here is also the principal meet of the Madras hounds. *St. Thomas' Mount.*—Passing over the Marmelong bridge and turning to the right, a drive of 3 miles along a well-laid out road, beautifully shaded by an avenue of banyan trees, will bring the visitor to St. Thomas' Mount, familiarly known as the Mount. This is an isolated cliff of green stone and syenite about 220 feet above the level of the sea. This station is intended for British troops, and contains some very handsome buildings—among them the various barracks for the artillery, &c. There are also a well-built Protestant church called St. Thomas' and a Wesleyan and two Roman Catholic chapels. These are on the plain. The summit of the Mount is also crowned by an old Roman Catholic church called the "Expectation of the Blessed Virgin." The building, erected in 1547, measures 109 feet by 78 and belongs to the Armenian Catholics. Behind the altar of this church is a curiously carved stone cross with a very ancient inscription which Dr. Burnell refers back to A.D. 800; it is attributed to Nestorians. Translated into English, this inscription reads—"Who believes in the Messiah and in God above, and in the Holy Ghost, is in favour with him who bore the cross." The Mount may be ascended for a general panoramic view of the cantonment and parade-ground of the artillery, which is always quartered here. The ascent is made by a flight of some 200 steps. There is also here a flagstaff—a land-mark for vessels at sea standing in for Madras from the south. *Poonamallee.*—This sanitarium for British troops is situated about 13 miles south-west of Madras. It can be reached in about two hours' drive along a well macadamised road or by rail viâ Avady. The station is generally a healthy one. The permanent European population of the place are chiefly pensioners. There is a Cantonment Magistrate's and a District Moonsif's Court here. A large and handsome hospital has been recently erected at the station. *Mavellipore.*—The city of the great Bali, known familiarly to the English as the Seven Pagodas, is situated about 35 miles south of Madras and about 5 north of Sadras. It is one of the most interesting, and to archæologists one of the most important spots of Southern India. The antiquities of the place may be divided into three groups—(1) the 5 rathas to the south of the village, belonging probably to the latest Booddhist period; (2) the cave temples, monolithic figures, carvings, and sculptures west of the village, probably of the fifth or sixth century A.D. (these contain some marvellous relievos, ranking with those of Ellora and Elephanta); (3) the more modern temples of Vishnoo and Shiva, the latter being washed by the sea. In the neighbourhood there is a Brahmin village of 777 inhabitants and 107 houses, but no travellers' bungalow, and supplies are scarce. A visit to this place will well repay those who take an interest in mythological and antiquarian subjects. The journey can be made in a few hours with ease and comfort by the Buckingham canal. *Sadras.*—Sadras, which can also be reached by the same canal, is an old Dutch settlement formed in the year 1647. It is situated on the coast and must have been during its occupation by the Dutch a very imposing place and flourishing town, but now it consists merely of a few houses and a native village of no importance. The fort is in a state of ruin, but enough of the fortifications remain to show the great strength of the masonry and the plan of the place. The monuments of the dead which it contains are an interesting subject of study. The former official residence of the Governor is now converted into a travellers' bungalow. It is rather a curious bombproof building, consisting of a hall with rooms on either side and out-offices in close proximity, the whole forming a square of no considerable dimensions. A short way off from this place stands the Governor's garden-house, a quaint but splendid edifice with towers, elevated terraces and curious arches. It is in a dilapidated state and portions of it have fallen to the ground. There are traces of a well-laid out garden and splendid tanks and other objects of interest about the place. *Covelong.*—In this connection Covelong, about 20 miles south of Madras, may also be mentioned. It was one of the earliest European settlements and formerly a place of some strategical importance. Covelong possesses a Roman Catholic church, almshouse, and orphanage. The salt-pans to the west of the village are large and there is some export trade in this article. Excellent oysters are found here. The inhabitants are chiefly fishermen and salt-manufacturers.

MADURA.

Description.—This district lies between 9° 4′ and 10° 44′ N. lat., and between 77° 14′ and 79° 20′ E. long. The total area is given as 8,401 square miles; the total population, according to the Census of 1881, amounts to 2,168,680 persons. Madura is bounded on the north by the districts of Coimbatore, Trichinopoly, and Tanjore; east and south-east by the sea; south-west by Tinnevelly district; and west by the State of Travancore. The administrative head-quarters are at the town of Madura.

2. *Physical Geography.*—Broadly speaking, Madura district consists of a section of the plain stretching from the mountains east to the sea, coinciding with the drainage basin of the Veigay river. Along its south-western border the district abuts on the range of the Western Ghauts, here known as the Travancore hills, which separate South-west Madura from the native state of that name; the boundary line then crosses the eastern end of the highland plateau, which, lying south of the Palghaut gap, comprises the continuation of the Western Ghauts and Agamala Hills (Malabar and Cochin) and the Anamullay (Coimbatore) and Pulney ranges, and includes the latter within the district of Madura. Trichinopoly and Tinnevelly districts form the northern and southern boundaries; and the Palk Straits on the north, and the Gulf of Manaar on the south of the Rameswaram Reef or Adam's Bridge, separate the island of Ceylon from the mainland. The general aspect of the district is that of a level plain, sloping gradually to the south-east, as indicated by the channel of the Veigay river. This plain, however, is broken in the west by the outlying spurs of the ghauts, and by a few isolated hills and masses of rock scattered over the country. The most important spur of the ghauts is that known to Europeans as the Pulney Hills, but called by the natives Varaha or "Pig Mountains." The Pulneys project east-north-east across the district for a total distance of about 54 miles. Their highest peaks attain an elevation of more than 8,000 feet above sea-level; and they enclose a plateau about 100 square miles in area, with an average height of 7,000 feet. On this plateau, a sanitarium for Europeans has recently been established at Kodaykarnal. Farther east, a confused group of hills, known as the Sirooomullays, the Caroondamullay, the Nuttam Hills, and the Alagar Hills clusters round the village of Nuttam, the largest of which reaches a height of nearly 4,400 feet. A sanitarium was planted on the first named, too, in early times, but it has been abandoned on account of the malignant fever which infects this entire group. Among isolated rocks may be mentioned the precipitous fortress of Dindigul, and the "Anamullay," the "Pasoomullay," and the sacred Scandamullay—all three in the immediate neighbourhood of Madura town. The principal river is the Veigay, which flows in a south-easterly direction from the mountains to the sea, passing by the town of Madura, and dividing the

district into two almost equal portions. Its chief tributaries are the Soorooliyaur, Varahanuddy, and Vattilagoondoo. The Gondoo and Varshalay are the only other rivers worthy of mention. All these streams (the Veigay included) are rather drainage channels than permanent rivers. In seasons of flood, when swollen by rains on the hills, they come down in impetuous torrents filling their sandy beds from bank to bank. But for the rest of the year they become mere trickling streams, whose water is intercepted by frequent dams for irrigation before ever it reaches the sea. The total area covered by hills and forests in the district is 1,098 square miles, of which 305·48 square miles constitute the reserves. The cultivated plain is absolutely barren of trees, except where a newly planted avenue marks the line of a main road. Groves of palmyra and cocoanut palms flourish along the sea-coast and the banks of the rivers. While the summits of the hills are generally clothed with long grass, valuable timber is found on the slopes of the Pulney Hills and in the Cumbum valley. Under the present system of the forest conservancy all indiscriminate felling has been stopped and forest trees grow in all the reserves. As many as 103 different kinds of ferns have been enumerated in different parts of the district; and among the wild products of the Pulneys are gallnut, cardamom, and coffee. The wild animals of Madura are almost entirely confined to the western hills, where the tiger, leopard, bear, elephant, bison, ibex, samber deer, and packs of wild dogs are still to be found. The tiger has been almost exterminated in recent years. Those occasionally seen are supposed to have wandered across the Travancore frontier. The Poligar dogs are a fine breed, very scarce and difficult to obtain by purchase. Most of the other domestic animals—oxen, buffaloes, ponies, and sheep—are undersized and miserable creatures, but the improvement of their breed is now receiving attention. The predominant geological formation is granite, which is supposed to underlie the surface soil everywhere, and crops up on the Pulney Hills in the form of gneiss, quartz, and felspar. Syenite occurs in large boulders. A gravelly bed of laterite runs across the district, which is quarried for building purposes; and sandstone is said to extend along the whole length of the sea-coast. Mineral products include saltpetre and salt (which effloresce from the clay soils), lime, chalk, and graphite. Iron in various forms is found in all parts of the district; it is worked, though not very profitably, by the rude native processes in Dindigul and in some other places. Gold is washed in some of the streams that flow down from the Pulney Hills. Among precious stones are found several kinds of opal, chalcedony, jasper, garnet, and rock-crystal.

3. *History*.—Madura boasts a more ancient and continuous history than perhaps any other district of the Madras Presidency. Here was the capital of the Pandyan monarchy commemorated by Greek geographers, which held its own from the earliest days until overthrown by the Mahomedans. Here, in later days, was the kingdom of the Naicks, which extended its sway over all the surrounding districts, and attained its chief power in the reign of Trimal (1623-59). This same period saw the successful enterprise of the Jesuit missionaries, under their great leaders Robert de Nobilibus and De Britto. Subsequently, when all the native dynasties of Southern India were falling to pieces under the contact of European civilization, Madura became the scene of continual warfare between the Mahomedans and the Mahrattas, until it passed to the British in 1801. The actual truth regarding the Pandyan period is enshrouded in the mists of sacred legends, but the existence of such a period is attested by a multiplicity of authorities. The author of the Periplous describes the whole Malabar Coast as under "King Pandion." Ptolemy, a little later, places "Pandion" on the eastern side of Cape Comorin. Many rock-hewn inscriptions and copper-plate grants are still in existence to prove the names and attributes of some of the Pandyan kings. Local tradition is preserved in the Madura Stala Poorana, a Sanscrit chronicle, to which Professor Wilson assigned a probable antiquity of 800 years. This curious document contains a considerable amount of information concerning the primitive doctrines of the Shiveite sect, and unquestionably embalms a few historical facts. The results of modern criticism seem to show that the Pandyas were established in Madura at least as early as the fifth century before our era, and that their empire lasted until the end of the eleventh century A.D. The last of the line, named Soondra Pandya in the Poorana, but known in Tamul legend as Koon Pandya, is said to have exterminated the Jains and conquered the neighbouring kingdom of Chola; but he was in his turn overthrown by an invader from the north, who is plausibly conjectured to have been a Mahomedan. It is certain that about 1324 a Mussalman army occupied Madura under the command of Malik Naib Kaufoor, and maltreated the subject Hindoos for a period of fifty years. Subsequently the district of Madura became a province of the great Hindoo empire of Vijianugger. Its history is confused and unimportant until the middle of the sixteenth century, when Vishwanatha, the founder of the Naick dynasty, was sent from Vijianugger as ruler to Madura, accompanied by a famous general, Arya Naick Moodelly. Vishwanatha was not only the head of a line of prosperous kings, but also the originator of a sort of feudal system which gave all the local chieftains a place of honour and responsibility under the central authority. The city of Madura had 72 bastions; and each of these bastions was placed in charge of a particular chief, to whom a special tract of country was assigned on condition of military service. Such was the origin of the 72 poligars of Madura, some of whom have maintained their possessions to the present day. Vishwanatha ruled at Madura from 1559 to 1563, and so consolidated his conquests that they passed peacefully to a long series of his descendants. The greatest of the line was Trimal (1623-1659), whose magnificence and military exploits are recorded in the contemporary letters of the Jesuit missionaries. He adorned Madura with many public buildings, which still exist in tolerable preservation, and extended his empire over the adjoining districts of Tinnevelly, Travancore, Coimbatore, Salem, and Trichinopoly. His gross revenue is estimated to have amounted to more than one million sterling, the greater part of which was derived from the crown lands. Emboldened by his prosperity, he threw off the nominal allegiance which his ancestors had always paid to the now effete Rajah of Vijianugger, a step which brought him into collision with the more powerful, though more distant, Sultan of Beejapore. The Mahomedans, after the lapse of many centuries, again invaded Madura, and compelled Trimal, to pay them tribute. The last days of the old king were gratified by a successful invasion of Mysore; but his policy of fomenting disunion among the Hindoo Rajahs was one of the chief causes which subsequently led to the predominance of the Mussalmans throughout Southern India. After the death of Trimal, the kingdom of Madura gradually fell to pieces. Tanjore was overrun by the Mahrattas under Yeckojee, a brother of the great Sivajee; Mysore was consolidated by the ambitious policy of the Hindoo Wodeyars, and afterwards by the usurper Hyder Ally; while Mahomedan influence steadily advanced southwards in the name of the Nawabs of the Carnatic. In 1740, Madura fell into the hands of Chunda Sahib, and the line of the Naicks was finally extinguished. During the next twenty years, the country became an easy prey to each successive band of invaders—Mahratta or Mussalman. In 1762, British officers took charge of the district, in trust for Wallajah, the last independent Nawab of the Carnatic, who finally ceded his rights of sovereignty to the East India Company in 1801. The talook of Dindigul had been captured from Mysore, after many military vicissitudes, in 1790. The two large zemindarry estates of Ramnaud and Shivagunga have a subordinate history of their own. The coast-line of Ramnaud is the home of a race called Maravars, who are supposed to be of aboriginal descent. Their chief, known as the Shetooputty, is the hereditary guardian of the temple of Rameswaram, an office which he claims to have received from the god Rama. It would seem that he always owed allegiance to the Pandyan Rajahs; but the ascertained history of the family begins in 1605, when a monarch of the Naick line appointed the Shetooputty to be the first of his 72 Poligars. So long as the Naick dynasty endured, they had no more faithful defenders than the Maravars of Ramnaud. Amid the general anarchy which followed on the death of Trimal in 1659, the Shetooputty succeeded in maintaining the integrity of his ancestral dominions. But in the beginning of the 18th century a succession of famines desolated the country. These were aggravated by internal dissensions; and in 1729, the kingdom of Ramnaud was dismembered. Three-fifths were left to the legitimate heir, while two-fifths were assigned to a rebellious vassal, whose descendant now bears the title of Rajah of Shivagunga. In the early days of British rule, both these zemindarries were centres of armed disaffection. They were for a long time notorious for neglected administration and backward agriculture, forming a marked contrast to those portions of the district held under the ordinary ryotwarry tenure. While the state of affairs of the Shivagunga Zemindarry is anything but satisfactory even now owing to its present distracted condition, the Ramnaud state has, under the management of the Court of Wards, attained a satisfactory improvement in every way, and its young Rajah is receiving the benefit of a European education.

4. *Archæology*.—There are a number of dolmens on the Pulney Hills, but not so far as can be ascertained, in other parts of the district. A very fine collection of ancient coins, mostly found at Madura, is in private hands there. The collection includes a large number of Roman copper coins found in the bed of the river, as well as a Chinese coin from the same place. The discovery of so many copper coins of the Roman Empire seems to argue the existence at Madura of a Roman colony at one period. If the coins were merely gold or silver the discovery would not be so significant. The great Shiva temple at Madura

is the chief archæological feature of the district, unless Trimal Naick's palace at the same place is held to occupy that position. The district contains also the celebrated place of pilgrimage, Rameswaram. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—An enumeration, taken in 1850-51 returned the number of the people at 1,744,587. The general Census of 1871 disclosed a total for the whole district of 2,266,615 persons, residing in 5,459 villages and in 443,513 houses; average number of persons per village, 415·2; persons per house, 5·11. The total area was taken at 9,502 square miles which gives the following averages:—Persons per square mile, 341·5; villages per square mile, 1·7; houses per square mile, 46·7. Classified according to sex, there were 1,102,066 males and 1,154,549 females; proportion of males, 44·6 per cent. Classified according to age, there were under 12 years—430,264 boys and 380,984 girls; total children, 811,248, or 35·8 per cent of the population. The religious division shows the following results:—Hindoos, 2,062,768, or 91 per cent.; Mahomedans, 132,833, or 5·9 per cent.; Christians, 70,786, or 3·1 per cent.; Jains, 13, and 215 "others." The great majority of the Hindoos, in the proportion of 5 to 1, profess the Shiveite as opposed to the Veishnavite faith; but it must be remembered that all demon-worshippers, including those of manifest aboriginal descent, are classed as worshippers of Shiva. The Christians include 175 Europeans and 166 Eurasians; the remainder (70,445) represent native converts, who are more numerous than in any other district of Madras, except Tinnevelly. The general census of 1881 disclosed a total for the whole district of 2,168,680 persons residing in 3,971 villages and in 395,096 houses, exclusive of 56,324 unoccupied houses. Average number of persons per village 546·1, persons per house 5·5. The total area was taken at 8,401 square miles, which gives the following averages:—persons per square mile 258; village per square mile 473; occupied houses per square mile 47; unoccupied houses per square mile 7. Classified according to sex, there were 1,032,707 males and 1,135,973 females, proportion of males 47·6. Classified according to age, there were under 10 years 290,020 boys and 302,072 girls; total children 592,092 or 27·3 per cent. of the population. The religious division shows the following results:—Hindoos 1,942,820 or 89·59 per cent., Mahomedans. 140,948 or 6·50 per cent., Christians 84,900 or 3·91 per cent., Jains and Booddhists 9, and 3 others. The majority of the Hindoos in the proportion of 48 to 10 profess the Shiveite as opposed to the Veishnavite faith. The Christians include 229 Europeans and Americans and 377 Eurasians. The history of Christianity in Madura yet remains to be written. In the beginning of the 17th century, there was a Jesuit church in Madura, where a Portuguese priest ministered to a poor congregation of fishermen, who had originally been converted by Francis Xavier. In 1606, Robert de Nobilibus visited Madura, and his soul was at once fired with the ambition of becoming the apostle of the Hindoos. Having previously obtained the consent of the Archbishop of Cranganore, he adopted the mode of life, diet, and garb of a sanyasy or religious devotee. Shutting himself up in the strictest seclusion, in order to master the Tamul language, he took care that the fame of his sanctity should be noised abroad. Gradually the people crowded round to learn who this strange teacher was, who gave out that he was no parangy or Portuguese, but a Gooroo from Rome, "meditating upon God." The success of his plan was very great. Men began by wondering at his asceticism, the profundity of his oriental learning, the purity of his accent, the subtlety of his intellect. They ended by becoming converts to his teaching, which allowed them to retain not a few of the ceremonial observances of Hindooism. It is currently said that the great king, Trimal Naick, heard him favourably. Much of de Nobilibus' success seems to have been due to his production of a forgery, which he asserted was a new Veda, and which was generally received as genuine. After labouring altogether about forty years, Robert de Nobilibus died in 1660 in a village near Madras, in the same state of abject poverty that he had always lived. He left behind him a number of religious works, written in Tamul on palm leaves; but it is not known whether they are in existence at the present day. His greatest successor was John de Britto, a Portuguese of illustrious birth and high education, who devoted himself to the civilization of the wild tribe of Maravar. He was martyred in 1693, by order of the Shetooputty. The last and most learned of the Madura Jesuits was Beschi, who compiled the first Tamul grammar, and whose Tamul writings are regarded even by native pundits as the most excellent productions in their literature. In the time of Robert de Nobilibus the native converts were estimated at more than one million souls. The Roman Catholics now number about 69,092, under the charge of two missions—the Jesuits and the Church of Goa. The former maintain 14 European and 3 native priests, who perform service in 341 chapels scattered over the district. The annual expenditure is said to amount to only Rupees 25,000 a year, derived from the parent society. The Protestant cause is represented by an American mission, first established at Madura in 1834. In 1883, they had eleven stations, each under the charge of a missionary, usually assisted by his wife. In that year there were 5,973 baptized converts and 2,886 communicants. The annual expenditure is about Rupees 80,000. The chief success of the Protestants lies in their schools. The three characteristic castes, or rather tribes, among the Hindoos of the Madura district are the Vellalar, the Maravar, and the Kuller. The Vellalar are the most numerous and the most respected class of agriculturists. They are fancifully believed to be foreign immigrants, introduced into the country by a "Pandya" dynasty; but they speak the purest form of the Tamul language and are essentially Dravidian in appearance. Under native rule, they were superior landlords, cultivating their estates by predial serfs. Their religion is a strict form of Shiva worship. The Maravar chiefly inhabit the two zemindarry estates bordering the sea-coast. By their physical appearance, not less than by their superstitious practices, they reveal their aboriginal descent. Their hereditary chiefs are the Rajahs of Ramnaud and Shivagunga. In early times they were renowned as a fighting tribe, and they have more than once risen against British authority. They follow the Dravidian custom of burying their dead and allowing the remarriage of widows. The Kuller are a tribe of professional robbers, whose head-quarters are in the tributary state of Poodoocottah. In the history of Orme they appear as "the Colleries," whose lawless spirit and personal bravery repeatedly led to sanguinary rebellions against the British officers of the district. These too are representative Dravidians of a somewhat rude type. Their religion is a debased form of demon-worship. Among their distinctive practices are polyandry and circumcision. Externally, they may be known by the singular fashion in which they distend the lobe of the ear. The principal towns in the district are—Madura city, pop. (1881), 73,807; Dindigul, pop. 14,182; Pulney, Keelakaray, Ramnaud, Aroopoocottah, Periyacoolum, Tiroomungalam, Paramacoody, and Shivagunga. The only municipalities are Madura and Dindigul, which had in 1883-84 an aggregate municipal income of Rupees 97,891; the rate of taxation being Rupee 1 Annas 2 Pies 4 per head in Madura, and Annas 14 Pies 11 in Dindigul.

6. *Agriculture.*—The total area of Madura district is estimated at 8,401 square miles, of which 4,804 square miles, or 57 per cent., belong to zemindarry or permanently assessed estates. Concerning these no agricultural statistics are available. The total area of the ryotwarry or Government village lands under occupation in the fusly year 1292 (1882-83 A.D.), was 827,353 acres. The area actually cultivated in that year was 751,194 acres, paying an assessment of Rupees 14,31,654. Of this amount, 615,412 acres were classed as "dry," and 135,782 as "wet." The chief food crops are rice (Oryza sativa), cholam (Holcus saccharatus), cumboo (Holcus spicatus), raggy (Eleusine corocana), varagoo (Paspalum frumentaceum), shamay (Panicum miliaceum), and several kinds of pulses. Other crops include oil-seeds, tobacco of excellent quality, grown in the neighbourhood of Dindigul, and a little indigo and cotton. No less than 29 different varieties of rice are enumerated, which differ from one another considerably in respect of productiveness, rapidity of growth, and quality of grain. The three most extensively sown are shumbah, milagoo and shiroomanian. Rice can be grown on almost every description of land, provided that a constant supply of water is obtainable, sufficient to cover the ground to a depth of 2 inches. In a favourable year, the ploughing is done in the months of June and July, after the early rains; the seed is sown in nurseries by the beginning of August; after about thirty days, the seedlings are ready for transplanting; in January, February and March, the crop is reaped. The principal harvest of the year is called kalam. A second crop of rice or inferior grains is sometimes obtained from the same field. Since the famine the price of rice has been moderate. The staple food supply of the mass of the people is derived from the "dry grains," i.e., those which need no irrigation. These are pounded, and eaten in the form of a thin porridge, with any condiment that can be got. The annual rainfall of Madura is both small in amount and variable in its seasons. Every possible means of storing up the surplus waters has been resorted to from time immemorial. All the hill streams, and especially the Veigay, are crossed by frequent anicuts or dams, which lead off the flood water into storage tanks, whence it is distributed over the fields with the utmost care and ingenuity. Some of these tanks are very large, and capable of supplying many hundred acres in a favourable year. That at Rajasingamungalam, in the north of Ramnaud, is said to be 20 miles in circumference. Unfortunately, many have been suffered to fall out of repair. In accordance with the Tank Maintenance scheme recently sanctioned by the Government of India, the first tank division is now working in the district, and it is hoped that all works will soon be restored to order. An important engineering project, known as the

Periyaur scheme, has long been under consideration, by which the abundant rainfall on the farther slope of the Travancore Hills would be diverted by a cutting or tunnel into the drainage basin of the Veigay. In the famine year of 1877-78, Madura district was situated on the southernmost limit of distress. The deltaic rice tract of Tanjore was secure from scarcity; the southern angle of Tinnevelly was also comparatively free, while the northern hilly districts of Salem and Coimbatore were severely afflicted. In Madura itself about 60,000 persons, or nearly 3 per cent. of the population, were in receipt of relief in August 1877, when the famine was at its height. The South Indian line of railway, then recently opened, did invaluable service by bringing rice from the port of Tuticorin.

7. *Forestry.*—Forest work has been in progress in this district for a number of years. The total area of hill and forest land in the six talooks of the district is roughly estimated at an extent of 1,200 square miles, two-thirds of which belong to Government and the remainder to a few zemindars. The principal forest areas are the Varshanaud valley, the Cumbum valley, and the slopes of the Pulney Hills, and it is in them the most important streams and feeders of Veigay river take their rise. The most noteworthy hill range is Pulney, consisting of the upper and lower Pulneys, the former rising to an elevation of about 8,000 feet. There are numerous other ranges as the Shiroomullays, the Caroondamullays, the Alagarmullays, the Nuttam Hills, and the low scattered hills in the Meloor talook in the neighbourhood of Ayiloor. The chief zemindarries are Bodinayakanoor, Cannivaudy, Ammayanayakanoor, and Guntamanayakanoor. The last-named is under the management of the Court of Wards, the zemindar being a minor, and the forests are looked after by the District Forest officer. The zemindars, as a rule, take little interest in their forest lands, and they are in consequence deteriorating rapidly. There is a considerable quantity of evergreen forest on the hills over the Cumbum valley, and patches known as sholahs on the Pulney Hills with several kinds of Eugenia, Michelia, Nilagirica, &c., trees, and in the lower Pulneys, there are some remnants of fine forest with isolated trees of great sizes. The commonest tree on this range is the Terminalia chebula, which in parts occurs in great numbers and yields a very large quantity of gallnuts annually. In the Varshanaud valley and on the slopes of the hills in the Cumbum valley, &c., are found teak and blackwood, vengay (Pterocarpus marsupium), vekkaly (Anogeissus), several Terminalias, Nauclea cordifolia, Chickrassia tabularis, &c.; the first two are rather scarce, but the rest, particularly vekkaly, are fairly abundant. In the other forests the growth is of a different kind and consists of acacias of different kinds, Acacia planifrons being very common in some parts, while Mimusops indica, Canthium Erythroxylon, Wrightia tinctoria, Milia, Grewia, Albizzia, &c., are also found. The revenue is derived from the produce sold by the permit system in the form of timber—both reserved and unreserved—firewood, bamboos, &c. There is a long list of minor products which are leased out, the principal one being the gallnut; of which there is a large supply, for the most on the Pulney Hills. The avaray shrub (Cassia auriculata) also grows in large quantities on the waste lands of the district. There are several plantations, two teak and two Australian (acacia and bluegum) and numerous topes, principally tamarind, in the district. Considerably more than 200 square miles have been finally constituted as reserved forest under the Act, and several other areas have been selected and proposed as reserved forest. Several fuel and fodder reserves have also been selected and notified. Final demarcation of reserved forest has been carried out in several places, survey has been commenced, and several areas have been successfully protected against fire. The head-quarters of the division are at Madura, and there are three ranges with head-quarters respectively at Chinnammanore, Periyacoolam, and Dindigul. There are, besides these, seven sub-ranges, five of which are under foresters, the other two being under forest guards.

8. *Commerce and Trade, &c.*—With the exception of salt, which is manufactured at certain stations on the sea-coast by solar evaporation as a Government monopoly, the industries of Madura are insignificant. Handsome turbans fringed with gold cloth and a peculiar kind of red cloth are specialities of Madura town. Turbans, also, and coarse chintz, are woven at Dindigul. Piece-goods, cotton twist, earthenware, and brass vessels are made all over the district, in sufficient quantities to leave a surplus for exportation. The salt-petre trade is languishing; and iron-ores, though abundant, have not been fully utilized. A considerable traffic is carried on by sea in native craft, though the coast-line is destitute of a single harbour. In 1883-84 the total number of vessels engaged in the foreign trade was 1,576; the total tonnage was 162,572, or an average of 103 tons. By far the greater share of the foreign trade is carried on with Ceylon. The coasting trade proper employed only 4,742 vessels and 97,254 tons. The principal exports from the district are rice and other grains, drugs, gingelly-oil, spices, piece-goods, salt-fish, red ochre, and earthenware. Tobacco is despatched by land from Dindigul in large quantities, to be made up into Trichinopoly cheroots. The chief means of internal communication is the South Indian Railway, which runs across the district in a northerly direction from Tinnevelly to Trichinopoly. During the famine of 1877-78, this small narrow gauge line proved of inestimable service.

9. *Medical.*—The climate of Madura is described as hot, dry, and variable. Its characteristics are, that there is no regular cold season, and that the scanty rainfall is distributed over the greater part of the year. During the ten years ending 1883-84, the average annual rainfall is returned at only 30·26 inches, of which 13·33 inches were brought by the south-west or early monsoon, and 16·93 by the north-east monsoon, which usually breaks in October. The months from December to February are the coolest in the year, being marked by heavy dews at night and fogs in the morning and evening. Along the sea-coast the sultriness of the hot season is tempered by sea-breezes. The climate on the Pulney Hills resembles the "half English air" of the Neilgherries. The district cannot be termed healthy, at least for natives. Besides the usual diseases of India, Madura possesses three especial scourges—endemic fever, which sometimes rages with exceptional severity, as in the fatal year 1811; cholera, disseminated by pilgrims to the sacred temple at Rameswaram; and the well-known "Madura foot." The last complaint, known to science as "Morbus pedis entophyticus," is a species of fungus, which spreads over the whole foot in a mass of tubercles. Its primary cause seems to be unknown. The registration of deaths is, notwithstanding the efforts made to secure correct statistics, untrustworthy especially in regard to the zemindarry tracts. The returns for 1882 show a death-rate of only 15·41 per thousand, which is probably about one-half of the actual truth. The municipal dispensary at Madura town gave relief in 1883-84 to a total of 33,658 patients, of whom 635 were in-door patients. The American Mission maintains two dispensaries at Madura and Dindigul, aided from municipal funds. In 1883, the former was attended by 23,912 patients, the latter by 27,216.

10. *General Administration.*—In the year 1883-84, the total imperial revenue of Madura district amounted to Rupees 33,78,416. The chief items were—land, Rupees 24,54,520, or 72 per cent.; salt, Rupees 3,42,320; abkarry or excise, Rupees 1,82,362; court fees, Rupees 2,42,500; stamps, Rupees 1,26,758. In that year, local funds yielded a total revenue of Rupees 4,19,320, mainly derived from a land-cess. The aggregate municipal income of Madura town and Dindigul in 1883-84 was Rupees 97,891. In 1883, the daily average number of prisoners in jail was 198·02, of whom 11·38 were women. These figures show 1 prisoner always in jail to every 10,951 of the population. The total expenditure was Rupees 15,112, or Rupees 76 Annas 5 Pies 2 per prisoner. Jail manufactures yielded a net profit of Rupees 467. The total number of deaths in jail was 4, showing an annual mortality of 20·2 per thousand. Education has made rapid progress in recent years. In 1857, there was only one school in the district, attended by 163 pupils. By 1867, the number of schools had risen to 65, with 2,330 pupils. In that year, 48 candidates went up for the matriculation examination of the Madras University, of whom 16 passed. The educational statistics for 1876-77 show a total of 424 schools and 12,509 pupils, being 1 school to every 22·4 square miles, and 5·5 pupils to every thousand of the population. The statistics of 1883-84 show a total of 1,049 schools and 29,070 pupils, being 1 school to every 8 square miles, and 13·3 pupils to every thousand of the population. The language of the district is Tamul, with a little Canarese spoken on the western boundary. English is now understood by a considerable number of natives in the town of Madura. There are eight printing presses in the district; six in native hands, and the remaining two belonging, one to the American Mission, who publish a Tamul newspaper called the "Satyavartamany," and the other to the S.P.G. Mission.

MAHENDRAGHERRY.

Description.—This is a mountain in the Eastern Ghauts, Ganjam district; lat. 18° 58′ 10″ N., long. 84° 26′ 4″ E.; height above sea-level 4,923 feet. The plateau is formed chiefly of a porphyritic gneiss, and the highest peaks are of granitic gneiss. On the plateau facing the sea at a height of 4,578 feet there is a bungalow, built by a former Collector,

and now kept up by the Rajah of Mundasa. The mountain is about sixteen miles from the sea, and lies exposed to the sea-breeze; the nearest port is Barwah. A temple crowns the peak, and is remarkable for the huge blocks of granitic gneiss of which it is composed. There are two other similar temples close by. There are inscriptions inside one of the temples and carvings in two of them. An annual feast is held here on the occurrence of "Shivarautry" in February, when a large concourse of pilgrims and sight-seers assemble, numbering from 1,000 to 5,000 persons. They descend the hill the same evening through dread of fever. There are three approaches to the hill. One is from Toomba in the Jalantra estate. The second is from Haripore on the great northern trunk road. The third route lies more to the south in the Parlakimedy estate, and although the longest is the easiest of the three. The total distance by the last is 31 miles. The flora of the plateau near the summit is quite distinct from that of the slopes. Violets and different kinds of ferns are common on the former, also the wild raspberry and mango. With the exception of hares and wild hog there is a comparative absence of animal life, although the hill is occasionally visited by bear, samber and barking deer. The hill is well suited for a sanitarium, and at one time the idea was entertained of making it into one for the benefit of Calcutta. As yet however no steps have been taken in this direction. The inhabitants of the Mahendragherry and adjoining hills are Sowrahs.

MALABAR.

Description.—This district lies between 10° 15' and 12° 18' N. lat., and between 75° 14' and 76° 52' E. long. It is bounded on the north by South Canara; east by Coorg, Mysore, the Neilgherries, and Coimbatore; south by the Native States of Cochin and Travancore; and west by the Arabian Sea. Area, 5,765 square miles; population (1881), 2,365,035. The administrative headquarters of the district are at Calicut town.

2. *Physical Geography.*—Malabar is singularly diversified in its configuration. From eastward, the great range of the Western Ghauts, only interrupted by the Palghaut gap, looks down on a country, broken by long spurs, extensive ravines, dense forests, and tangled jungles. Stretching westward, gentler slopes, rolling downs, and gradually widening valleys, closely cultivated, succeed the forest-clad uplands, till nearer the seaboard the low laterite tablelands shelve into rice plains and backwaters fringed with cocoanut palms. Numerous rivers have hollowed out for themselves long valleys to the coast, where, meeting the littoral currents, they discharge into a line of backwaters. The district extends along the coast for 145 miles; its breadth varies from 25 miles on the north to 70 on the south. The coast runs in a south-easterly direction, and forms a few headlands and small bays, with a natural harbour in the south at Cochin. The seaboard may be considered tolerably open, except to the north-west, where stands the island and hill of Mount Delly (885 feet), a bold eminence of laterite and gneiss, and a conspicuous landmark to mariners. In the south, there is a considerable extent of tableland; but generally the fall of the hills is steep, with ledges of rocks along the crest. The rocks are chiefly gneiss, and the geological formation primary. The mountains of the Western Ghauts, varying from 3,000 to 5,000 feet above sea-level on the Coorg and Wynaud slopes and reaching 7,000 and even higher on the Coondah face, run almost parallel to the coast. Here and there they branch off to the westward, forming large valleys, while abreast of Calicut they recede to the eastward, and form with the Wayut Hills (Camel's Hump) the valleys of Ernaud. On the north, the ghauts join the higher mountains on the western face of the Coondahs. The portion of the range eastward from the Coondahs as far as the lofty mountains north of Palghaut, is comparatively low; it encloses a tract of 200 square miles known as the Attapaudy valley, where rise the headwaters of the Bhawany river. Perhaps one of the most striking features in the country is the Palghaut gap, a complete opening, some 25 miles across, in the great backbone of the Peninsula. Here, by whatever natural agency the break occurred, the mountains appear thrown back and heaped up, as if some overwhelming deluge had burst through, sweeping them to left and right. On either hand tower the giant Neilgherries and Anamullays, overtopping the chain of ghauts by several thousand feet; while through the gap the south-west winds bring cool air and grateful showers to the plains of Coimbatore. The unique character—as a point of physical geography—of this gap in an otherwise unbroken wall of high mountains, 600 miles long, is only equalled by its economic value to the countries lying on either hand of it. Several ghauts or passes connect the coast with Mysore, Coorg, the Wynaud, and Cochin. The district is intersected by many rivers and minor streams, navigable inland for a few miles above tidal influence, and all having their sources in the Western Ghauts. The chief of these are—the Belliapatam, rising in Coorg, and falling into the sea below Belliapatam; the Dharmapatam, rising in the Wynaud; the Cota, navigable from the sea for a distance of 20 miles; the Mahé; the Beypore river, which breaks through the ghauts to the north of Carcoor in a long succession of cataracts, and enters the sea at Beypore; the Cadalvandy, and the Ponnany. The last named river, flowing through a rocky country, is much broken by rapids; but in time of flood the volume of water is sufficient to float large timber down to the coast, a purpose for which this stream is largely used. One of the most characteristic features of Malabar is the all but continuous chain of lagoons or backwaters lying parallel to the coast, which have been formed by the action of the waves and shore currents in obstructing the waters of the numerous rivers. Of these backwaters the most important are—the Cavvye and Belliapatam in the north; the Payyangaudy, Quilandy, and Yelattore in the middle of the coast line; and the Chetwye and Codangalore in the south. There are two fresh-water lakes, one at Tannore, comparatively unimportant, but the other, the Trichoor or Yenamacull lake, of great value, and deserving notice for the singular struggle of human industry against the forces of nature which the cultivation of its bed demands. At the close of the rains, the water in this lake—which is protected from tidal influences by a dam—rapidly subsides, and every foot of ground is planted with well-grown seedlings, as soon as the flood recedes far enough. As the dry weather advances, the bed of the lake presents a magnificent expanse of the most luxuriant rice. With the early thunder-harbingers of the south-west monsoon in April, commences the struggle with the slowly but steadily rising floods. The low earth-banks that enclose convenient areas are repaired, and numberless Persian wheels bristle in their wooden frameworks. Thousands of the population, many of them good caste Nayar women, are seen perched high above the scene on these machines, continuing the day and night contest for the preservation of their crops. The bulwarks of the advanced fields are frequently breached, and the immature crop is drowned. Often a large area has to be reaped by simply heading the stalks from boats; but, as a rule, an enormously rich crop rewards this remarkable industry. The inland navigation is so extensive that the trade of the country is in a great measure conducted by water; the principal commodities are firewood, rice, pepper, dry grains, country vegetables and condiments, jack, plantain, and mango. Teak and other timber and bamboos are floated down from Iricoor, the Anamullays, and Nelambore to the coast depôts. The affluents of the Cochin backwater also bring down timber for export from that town. The castes living by fishing number 11,295, or ·96 per cent. of the whole male population. No revenue has ever been derived from leasing fisheries, but a flourishing trade in fish-curing is carried on at the seaports. The value of the exports of salt-fish to Ceylon is about Rupees 1,70,000 per annum. The forests of Malabar are extensive and of great value, but they are almost entirely private property. The few tracts conserved have come into Government hands by escheat or by contract. Wild animals include elephant, bison, samber, spotted deer, tiger, panther, hog, Neilgherry ibex, hyæna, and bear. Small game is very abundant, and there are many varieties of fish.

3. *History.*—Tradition asserts that the strip of land between the Western Ghauts and the sea forming the Malabar District and Travancore State, the ancient Kerala country in fact, was raised out of the sea within the knowledge of man; and there is nothing improbable in the fact. The Brahmins have utilized this tradition later on under the dress of Parashoorama, who recovered the coast from the sea, brought Brahmins from the north, and partitioned out the land among them.

4. The earliest inhabitants of Malabar must be looked for among the Cheroomar and Poliyar, the slaves of the soil, who until recently were bought and sold with the land; and among the jungle tribes, such as the Coorumbar, Panniyar and Coorichiyar. These represent respectively the pastoral, agricultural and hunting tribes. They have disappeared from the low country; but representatives of each race are still to be found in the forests of the Wynaud, and the Coorumbar have left their name behind them on the coast. The first wave of immigration brought the cultivators of the palm, who are known by different names; such as Teeyar, Yeloovar, Chogans, Shaunar. It is commonly supposed that the word Teeyar is derived from Dweepa and signifies an islander, and that Yeloovan is derived from Seelam or Ceylon. The next wave of immigration brought the Nayars,

which is now the generic name for the Shoodras of Malabar. It is commonly supposed that the word Nayar, Nayak, Naidoo, originally denoted the military as opposed to the agricultural division of the Dravidian tribes. The Nayars of Malabar have always been essentially a martial people, and, in habits and customs, have but slight affinity to the ordinary Tamuls; the Moodelliars, the Pillays and the Gowndens. Probably they bear a closer resemblance to the Teloogoo Reddies. They appear to have entered Malabar from the north rather than from the south, and to have peopled first the Tooloo and then the Malayalam country. They were probably the offshoot of some colony in the Concan or the Deccan. The most prominent facts which can be noted regarding them are that they were serpent-worshippers, that they practised polyandry, that their land tenures in common with their other customs point to a military organization, and that their language was Dravidian. That the original Nayars were serpent-worshippers is attested by the fact that to this day a form of serpent worship is maintained in every wealthy Tarwad, and a corner of the compound is set apart for the snakes. Further, there is the tradition that at the time of the Aryan immigration, the country was peopled by serpents or serpent-faced men. The system of transmitting property through the sister's son, or what is called the law of Maroomakkatayam, prevalent among the Nayars, could only have originated from a system of polyandry. The warlike propensity of the Nayars is attested by the employment of implements of war in their household ceremonies, by their isolated mode of living in the midst of fenced gardens and by the establishment in each village or Tara of a "Kalary" or gymnasium, where their youth were taught to accustom themselves to the use of arms. Their ballads too abound with stories of the martial achievements of heroes. The language of the Malayalam Shoodras and Nayars is Malayalam. This is the language spoken along the Malabar coast on the western side of the ghauts or Malaya range of mountains from the vicinity of Chundragherry, where it supersedes Canarese and Tooloo, to Trivandrum where it begins to be superseded by Tamul. Those are the ancient limits of the Sanscrit Kerala, viz., from Chundragherry to Cannetty, though in its more comprehensive sense Kerala denoted the whole Western Coast from Gocarna near Goa to Cape Comorin. It has often been a matter of controversy whether Malayalam is the mother or sister or daughter of Tamul. The correct opinion however is that it is the archaic form of Tamul before it became a written language, and this corresponds with the information derived from the Greek writers that the west coast country was known by the name of Dimurikè, i.e., Tamulikè or the Tamul country. The third wave of immigration brought the Numbootiries or Numboory Brahmins of Malabar. The ordinary derivation of the word Numbootiry is one well versed in the Vedas, or more literally "full of wisdom." Another derivation is from a Dravidian word meaning trust or confidence. The advent of the Aryans perhaps took place in the first three centuries of the Christian era. The Booddhist missionaries probably preceded the Brahmins. Kerala is one of the countries mentioned in the first edict of Asoca. But although according to tradition some of the Chera Kings favoured its introduction, Booddhism never obtained a firm hold in Malabar. Malabar was for centuries a stronghold of Brahminism. Shut off by the long range of the Western Ghauts from other centres of civilization, Malabar maintained an isolated existence. The legendary history of Malabar composed by the Brahmins is not worthy of credit. It is not probable that the Brahmins ever acquired the sovereignty of the country or took to arms as a profession. It has been asserted that the great Parashoorama himself was a Nayar, and not a Brahmin hero. The Brahmins appear to have been welcomed by the people of Malabar, though on their first advent in Colatoonaud they found it necessary to conciliate the inhabitants by adopting the law of inheritance in the female line. It is not unreasonable to suppose that this condition was imposed on the Panniyoor Gramam or early Brahmin settlement by the local Nayar ruler, as it was on the Teeyar who were already occupants of the soil, and as it was afterwards on the Moplahs who settled in his dominions. The Numboory Brahmins founded their Gramams and their Devasoms and soon began to exercise a powerful influence in the Council Chamber of the Nayar King. The Shoodras willingly associated their females with the Brahmins, and the custom of securing Brahmin husbands for the females of the royal families and petty chieftains of Malabar continues to the present day. The intermingling of races has been very felicitous in producing a fine body of men and women. Subservience to the Brahmins has always been one of the chief characteristics of the Nayars, though on the other hand they arrogate to themselves a position of relative superiority to all inferior castes. At the present day there are numerous sub-divisions among the Brahmins of Malabar. Below the Numbootiry are the Eliads, the Mussads and the Numbidies. And again intermediate between the Brahmin and the Shoodra is a class of persons called Ambalavausies who are employed as temple servants and known by the name of Vauriyar, Pishauradies, Numbishans, &c. Among the West Coast Rajahs, there are some who claim to be of Cshatriya origin, and the Cochin Rajah has perhaps some foundation for his claim. It is probable that he rose to power on the extinction of the Chera dynasty. The Chiracal Rajah of the Colattiry family, and the Travancore Rajah who is a branch of the same family, are representatives of the ancient Nayar Kings; perhaps the oldest aristocracy in the world. Similarly the Valavanaud Rajah of the Vellattiry family is a representative of another ancient kingdom. The smaller Rajahs, if Cshatriyas, are persons who rose to power in the ninth century; if Shoodras, are perhaps representatives of the families of old chieftains of the country. The only indigenous people of Malabar not above mentioned are the Mookwar or fishermen of the coast, numbers of whom are converts to the faith of Islam. Of the foreigners who have entered Malabar, it is unnecessary to say much. There have arrived Tooloo Brahmins or Yembrauntries, Concany Brahmins, and Tamul Brahmins or Puttar. The last class are especially numerous in Palghaut. There are artisans from the East Coast with their sub-divisions into guilds of carpenter, goldsmith, brazier, blacksmith and coppersmith. There are the inferior artisans, such as the washerman, the barber, the potter, &c. These complete the list of the so-called Hindoos who have migrated into the province. In this sketch of the ethnographic history of Malabar, the Native Christians must be recounted. They are divided into four classes, viz., the Syrians, the Romo-Syrians, the Roman Catholics and the Protestants. The Syrian Church has been in existence from the early centuries of the Christian era. It was probably founded by Persia and subsequently acknowledged the supremacy of the Patriarch of Antioch. At the Synod of Diamper in 1599 A.D., most of these churches became proselytes to the Church of Rome, but the coast churches remained faithful to their allegiance. These form the sect of Romo-Syrians, who are governed either from Portugal or Rome. The Roman Catholics are the descendants of the Portuguese families, who intermarried with the natives of the country and the converts of the Portuguese and Latin missions. The Protestants are the converts made by the Basel Missionaries. The bulk of the Native Christians in Malabar belong to this sect, though in Calicut and other towns there is a considerable body of Roman Catholics and on the borders of Cochin a few Romo-Syrians. The bulk of the Romo-Syrians and the Syrians are to be found in Cochin and Travancore. It only remains to speak of the Moplahs. Originally the descendants of Arab traders by the women of the country, they now form a powerful community. There appears to have been a large influx of Arab settlers into Malabar in the 9th century A.D., and the numbers have been constantly increased by proselytism. The Moplahs came prominently forward at the time of the Portuguese invasion at the end of the 15th century A.D.

5. When commerce was almost in its infancy, a trade sprung up between the Mediterranean ports and the ports of the Western Coast. The Phœnicians by way of the Persian Gulf, and afterwards by way of the Red Sea; perhaps the Jews under Kings David and Solomon; the Greeks under Alexander the Great; the Syrians under the Seleucidæ; the Egyptians under the Ptolemies; the Romans under the Emperors; the Arabians after the conquest of Egypt and Persia; the Italians, more especially the Republics of Venice, Florence and Genoa; the Portuguese; the Dutch; the French; and the English; have each in their turn maintained a direct trade with these ports. The external history of India commences with the Greek invasion in B.C. 327. And if, as is supposed, Pliny's sources of information regarding India were derived from Megasthenes' Indika, there is available a description of the Malabar coast as it existed more than 2,000 years ago. The following passage from Pliny's Natural History VI, 21, undoubtedly refers to Malabar:—
"Next follow the Nareæ enclosed by the loftiest of Indian "mountains, Capitalia. The inhabitants on the other "side of this mountain work extensive mines of gold and "silver. Next are the Oraturæ, whose king has only ten "elephants, though he has a very strong force of infantry. "Next again are the Varetatæ, subject to a king who "keeps no elephants, but trusts entirely to his horse "and foot. Then the Odombœræ: the Salabastræ: "the Horatæ, who have a fine city defended by marshes,

"which serve as a ditch wherein crocodiles are kept, "which, having a great avidity for human flesh, prevent "all access to the city except by a bridge. Another "city of theirs is much admired—Automela—which being "seated on the coast at the confluence of five rivers, is a "noble emporium of trade. The king is master of 1,600 "elephants, 150,000 foot and 5,000 cavalry. The poorer "king of the Charmæ has but sixty elephants and his "force is otherwise insignificant. Next come the Pandæ, "the only race in India ruled by women. They say that "Hercules having but one daughter, who was on that "account all the more beloved, endowed her with a noble "kingdom. Her descendants rule over 300 cities and "command an army of 150,000 foot and 500 elephants."— The following are possible identifications of the places and people mentioned. The Nareæ may be the Nayars of Malabar enclosed by the Western Ghauts. The mines of gold and silver may be the same mines which after 2,000 years English capital is attempting to work in the Wynaud. The Oraturæ may have been the subjects of the Malabar Rajah who still retains the ancient name of Colattiry. His dominions at that time probably comprised the whole of the Tooloo country and North Malabar. In the Varetatæ there may be an allusion to the now extinct Varatatta Rajah, whose palace, was in the neighbourhood of Taliparamba, and whose descendants are still living in Travancore. His dominions were at some period or other absorbed by his neighbour, the Colattiry King. The Odombœræ may represent the Coorumbar of Cooroombranaud and the Salabastræ the Vallabhas of Valavanaud. The Coorumbar have disappeared from the coast, but have left their name behind them. They are now to be found in the Wynaud and on the Neilgherry plateau, and it has been suggested that Cadamba may have been a corruption of Caud-Coorumba. The Valavanaud Rajah is still the Vallabha Rajah. His territories formerly comprised the maritime district of Cheranaud and his subjects were the Vallodis of Valavanaud, the Nedoongadis of Nedoonganaud, and the Eradis of Yernaud. The Horatæ, Charmæ and Pandæ, may very probably stand for the familiar Chola, Chera and Pandya. The site of Automela (which may be Yettoo Mala, eight hills or perhaps Attoo Mala, river hill) must be looked for in the neighbourhood of Cranganore, which was always an important emporium of trade, and in the vicinity of which may be found to this day a village called Annanuddy (that is to say Anja-nadi or the five rivers). The site of the crocodile city is perhaps Tripoonatora, the ancient residence of the Cochin Rajahs, the Tropina of the ancient historians. The legend of Hercules and his daughter survives to this day in Kanya Comaury or Cape Comorin. If these suggestions are correct, there were at the time of Megasthenes in the fourth century B.C. a number of independent kingdoms in Malabar, of which Cola or Colattiry was the most important, with its northern boundary at Gocarna near Goa, and its southern boundary, the river which bounds Cooroombranaud on the north. The Varatatta Raj was perhaps an imperium in imperio. The Vallabha Rajah's dominions probably extended as far south as the Ponnany river. Then followed a powerful Chola kingdom, extending perhaps as far as Alleppey, a small Chera kingdom from Alleppey to Anjengo, and the Pandyan kingdom commencing at Anjengo and stretching round the east coast as far north as the Vellaur river. Rivers must be looked for as the boundaries of ancient kingdoms. The old tradition that women cannot cross the southern boundary still exists in North Malabar and among the Nauttoocottah Chetties of Madura. These identifications are supported by the internal history of India. It is ascertained from local tradition that Chera, Chola and Pandya all exercised some kind of sway in Malabar, though eventually Chera obtained the supremacy. According to the Sanscrit Pooranas, Pandya, Kerala or Chera, Cola, and Chola are represented as the four sons of Akrida or Dooshyanta, the adopted son of Doorvasa, a prince of the lunar line of the Cshatriyas. The limits of Pandya Chola and Chera were constantly shifting. On the east coast, Pandya and Chola were constantly fighting for the leadership with alternate success. On the west coast, the contest resulted in Chera establishing its supremacy and in Chola being driven to the other side of the ghauts.

6. The next description of Malabar occurs in a passage in the Periplus of the Erythræan Sea, written probably in the 3rd century A.D. The author first describes the country to the south of the Indus which appears to have been known by the name of Ariaké; probably identical with the Lariké of Ptolemy and the Lar of Marco Polo, whence the Brahmins came, and which denotes simply the country where the Aryans had settled. He also notices two large seats of commerce in the Deccan, and then proceeds to enumerate the ports between Barygaza or Baroche and Limuriké. It is now assumed that Limuriké is simply Dimuriké or Tamiliké, that is to say the country of the Tamul-speaking people, and as Tamul and Malayalam were then one language, the commencement of Limuriké may be placed in the neighbourhood of Mount Delly. A long stretch of pirate coast, but little frequented, appears to have intervened between Ariaké and Limuriké, and Arrian's list of ports was probably derived from hearsay. The passage to which attention must be called is this :—"Then follow Naoura and Tundis, "the first marts of Limuriké, and after these Mouziris and "Nelkunda, the seats of Government. To the kingdom "under the sway of Keprobotras, Tundis is subject, a "village of great note near the sea. Mouziris, which "pertains to the same realm, is a city at the height of "prosperity, frequented as it is by ships from Ariaké and "Greek ships from Egypt. It lies near a river at a distance "from Tundis of 500 stadia, whether this is measured "from river to river or by the length of the sea voyage, "and it is 20 stadia distant from the mouth of its own "river. The distance of Nelkunda from Mouziris is also "nearly 500 stadia, whether measured from river to river "or by the sea voyage, but it belongs to a different "kingdom, that of Pandyan." Keprobotras is only another name for the Chera King whose capital, according to Ptolemy, was at Karura or Caroor. Roughly speaking, the western coast from the Beypore river to Trivandrum was under his sway, and Mouziris, which has been satisfactorily identified as Mooyaricode in the neighbourhood of Cranganore, was the capital of his western dominions. At the height of its power, Chera is said to have extended 800 miles, whilst Chola and Pandya only extended 240 and 560 miles respectively. Chera is supposed to have comprised, besides its western dominions, Coimbatore, Salem, the southern part of Mysore, and perhaps Tondeimandalam on the east coast. Tundis has been identified as Cadaloondy, south of Beypore, and Naoura, not impossibly denoted the port of the Nayar country, which was apparently still independent of Chera. Nelkunda, which was subject to Pandya, must then be located to the south of Cannetty, the traditional southern boundary of Kerala. Among the articles of commerce enumerated by the author of the Periplus is the pepper of Cottanara, that is to say of Colatoonaud.

7. For the next five centuries, there is little information of the changes which took place in Malabar. Before the middle of the 8th century, Chera had probably been dismembered of its outlying provinces and had little left but its western dominions. The Conga dynasty was spreading its conquest far and wide. The kingdom of Colattiry was shorn of its Tooloo province, which was annexed to the territories of the Cadamba King of Banavausy. The total extinction of the Chera dynasty took place in 824 A.D., when the last of the Permauls or Governors sent out from Chera was expelled by a popular revolution. Amid the last acts of the Chera King or the Permaul his representative was the erection into principalities of the communities of the Jews and Syrians. At that time it is known from the Jews' and Syrians' deeds, that the country as far south as Quilon, or Venaud, Odunaud, with its capital at Canayancollam, Yernaud, Valavanaud, and Palacaud all owned the supremacy of the Chera King. The disappearance of the last of the Permauls was, as was natural, the signal for the assumption by the local Cola King of the leadership of the Malabar coast. With its northern branch at Colatoonaud and its southern branch at Trivandrum, the great Colla Swaroopam or Colla dynasty, from which the Malabar era derives its name, at first met with but little opposition from the subordinate kings and chieftains. By degrees the Perimpatap Swaroopam of the Cochin Rajahs, the Tripa Swaroopam of the Travancore Rajahs, and the Nediyiroop Swaroopam of the Yernaud Rajahs, asserted their independence. The last-mentioned Rajah, styling himself Lord of the seas (Tamoodry or Zamorin) by alliances with the Arab settlers and the pirates of the coast, succeeded in subduing the petty chiefs and princes and in extending his dominions in every direction.

8. In the 12th or 13th century, the Bellaul dynasty of Dwara-samoodra boasts of having conquered among other nations the Keralas, though what portion of the ancient dominions of Chera succumbed to them cannot be stated. At the end of the 13th century, there is the evidence of the Venetian traveller Marco Polo that there were separate kingdoms of Coilum, Comari, Eli and Melibar. It has been usual to assume that Coilum must necessarily represent Quilon in Travancore, but this may possibly be a hasty assumption. The mention of Jews and Christians points to Cranganore, the capital of the

Cochin Rajah, and this locality more nearly coincides with the distance of 500 miles from Maaber, the Chola-Pandyan kingdom on the east coast, whose capital was probably Tanjore or Madura. The word Coilum or Collam, is simply a contraction of Covilagam or king's palace, and may be equally applied to Cranganore as to many other places. Indeed there is evidence that it was at one time applied to Cranganore. It is known that it was applied to Quilandy in Malabar and to Quilon in Travancore. Korkay in Tinnevelly and Covelong on the east coast are, simply other forms of the same word. Cranganore was always an important port of commerce, and there seems no reason why it should have given place to Quilon. Ibn Batuta, who wrote about fifty years later than Marco Polo, states that ships from China frequented the ports of Hili, Kaulam and Calicut, which were probably the three ports of Colatoonaud, Cochin and the Zamorin. The Kingdom of Comari (Cape Comorin) occupied the extreme south of the Peninsula, and perhaps included Korkay and Cauyal on the east coast. Five centuries later, Fra San Bartolomeo states that the kings of Travancore had hitherto been insignificant princes, whose territories extended only about fifteen or twenty miles up the country from Cape Comorin. The Kingdom of Eli is satisfactorily identified with Mount Delly the capital of the ancient Cola king or Colattiry and Melibar probably represented the newly founded kingdom of the Zamorin with its capital at Calicut.

9. At this time then Malabar was divided among numerous small chieftains, of whom Colasttiry or Chiracal in the north, and the Zamorin in the south, were the most conspicuous; and it was with these two, and the Cochin Rajah, that the early Portuguese adventurers first entered into relations. Vasco da Gama visited Malabar in 1498; and his successors speedily established themselves at Cochin, Calicut, and Cannanore. In 1656, the Dutch appeared in the Indian seas, to compete with the Portuguese for the trade of the country. They first conquered Cannanore, and in 1663 captured the town and fort of Cochin, as well as Tungacherry, from their rivals. In 1717, they secured the cession of the island of Chetwye from the Zamorin. But in the next half-century, their power began to wane; Cannanore was sold to the Cannanore family (Beeby), represented at that time by Bauvaly Rajah in 1771, Chetwye was conquered by Hyder in 1776, and Cochin captured by the English in 1795. The French first settled in 1720 at Mahé, in 1752 obtained a footing at Calicut, and in 1754 acquired Mount Delly, and a few outposts in the north, all of which fell into the hands of the English in 1761. Their frequent wars with the English ended in the destruction of their commerce in the East, Mahé having been thrice taken and restored.

10. The English had established themselves in 1664 at Calicut, in 1683 at Tellicherry, and by 1714 at Anjengo, Chetwye, and other commercial factories. Tellicherry became their chief entrepôt for the pepper trade, and so rapid was the extension of their power and influence, that in 1727 the factors mediated a peace between the princes of Canara and Colattiry. They obtained the exclusive privilege of purchasing the valuable products of the country, viz., pepper, cardamoms, and sandalwood. For nearly a century the Mahratta pirates under Angria and other chiefs infested the coast, and ravaged even inland towns, by sailing up the rivers of Beypore, Ponnany, &c., till 1756, when they were destroyed by a British expedition. The Ikkairy or Bednore Rajah, in 1736 and 1751, invaded the country of Colattiry and imposed fines on the northern division. The Palghaut State, after a dismemberment by the Rajahs of Calicut and Cochin, sought the alliance of Mysore, then ruled by its Hindoo Rajah, who stationed a subsidiary force in Palghaut; and it was this connection which afforded Hyder Ally, when he became Regent of Mysore, a pretext for invading Malabar in defence of his ally, the Palghaut Atchen. In 1760, Hyder sent an army to Palghaut, and descended the ghauts through Coorg, in person. Again, in 1766, at the instigation of Ally Rajah, the Moplah chieftain of Cannanore, he made an easy conquest of the whole country, the Rajahs flying into the jungles or taking refuge in the English settlement of Tellicherry. They, however, took advantage of the war between Hyder and the English in 1768 to reinstate themselves, until 1774, when Hyder again passed down the ghauts with two armies, and completely subjugated the country, the Hindoo chiefs retiring to Travancore and Tellicherry. On war breaking out between the English and French in 1778, Hyder resented the asylum granted by the former to refugees in 1769, and commenced hostilities by investing the Tellicherry fort. The siege was prosecuted in a fitful manner for two years, till reinforcements arrived from Bombay, when it was raised by a sortie, whose success was so complete as practically to annihilate the besieging army. Peace intervened between 1784 and 1788, when Tippoo Sultan, son and successor of Hyder, descended the ghauts, and commenced a religious persecution of the people. This produced a rebellion, and on the breaking out of the war between him and the British in 1790, the refugee chiefs were encouraged by proclamation to join the British cause. The contest terminated in the cession of Malabar (except Wynaud) to the Company by the treaty of peace, dated 18th March 1792. The Commissioners appointed by the Bombay Government immediately reinstated the Rajahs and chiefs in their possessions, and made a settlement with them for the revenue. The measures taken for the introduction of a civil Government have already been detailed; but for some years the peace was persistently broken by the Cotiote Rajah in the north, and by Moplah leaders in the south. For ten years (1795-1805) these rebels and other turbulent chiefs kept the military regularly employed. Since that time, save occasional Moplah outbreaks, the peace of the district has been undisturbed. Moplah outrages, which now generally originate in mixed motives, partly agrarian and partly fanatical, have long been a distinct feature in Malabar history. Lawlessness and violence had characterized the disposition and conduct of the inland Moplahs during the latter epoch of Tippoo's ascendency and the earlier years of British rule, and successful measures of repression are associated with the name of "Munjery Watson," (so called from the military station he occupied) and his local Nayar levies. The spirit however remained, and incentives for its occasional outburst have not been wanting. The more recent instances have generally taken the form of resentment against some unreasonable Hindoo landlord, or against hostile witnesses in the civil courts. The assassination of one of these surrounds the murderer with sympathizing co-religionists, and as, besides wreaking his fanatical vengeance on its primary object, he invariably contemplates selling his life in a contest with the representatives of what they regard as an infidel Government, these outbreaks have assumed a serious aspect. The resolve once taken, these would-be martyrs (Syeds) meet in a sacrificial feast (Mowlood), divorce their wives, and spend an interval in religious observances. As soon as they have struck the first blow, they set the law at defiance, often committing further murders, and burning and defiling Hindoo temples and houses, till they encounter troops sent to repress them; upon these they throw themselves with the despair of fanaticism, selling their lives as dearly as possible. Experience has shown that native sepoys cannot be relied on to deal with these outbreaks with the firmness which the circumstances demand. A special police force organized in 1851 was also found unequal to the work. Since the very serious outbreak near Munjery in 1849, when sixty-four fanatics were destroyed in a hand-to-hand encounter with a detachment of H.M.'s 94th Regiment, the employment of European troops has been found necessary. The gallant Wyse, his soobahdar, and others were killed on this occasion. In 1851, another serious disaster occurred at Colattoor; and in the same year, a detachment of British infantry was established at Malapooram, the centre of the most menaced districts, which is still maintained. In 1852, the spirit of outrage spread to North Malabar, and a dreadful tragedy occurred at Mattanore, near Tellicherry, involving the destruction of thirty to forty lives. In the following year, the "Moplah Outrage Act" was passed, providing a system for fining all the Moplah inhabitants of the amshoms in which outbreaks should occur; but it was not at once brought into force. The fanatical Arab high priest or tangal of Tiroovangaudy, Syed Fazl, was suspected of fomenting these outbreaks, and he certainly conferred his blessing on the murderous projects of his disciples (styling themselves "Moorid," or "Martyr)." Under measures taken by Mr. Conolly, the Magistrate, in 1853, this personage had to leave the country, never to return. Two years later, when Mr. Conolly was sitting in his verandah in the evening, a body of well-known fanatics, who had recently escaped from the Calicut jail, rushed in, and hacked him to pieces in his wife's presence. Then, for the first time, the Moplah Act was put in force, and heavy fines were enacted. The last outbreak of much importance (also at Colattoor) occurred in 1873, when a gang, nine in number, charged a detachment of the 43rd (Queen's), and were all shot down, and heavy fines were again imposed on the Moplah inhabitants of the implicated amshoms. Quite recently a small outbreak occurred.

11. *Archæology.*—The ancient name of the Malayalam country including the Native States of Cochin and Travancore was Chera; and Kerala, a name by which a large portion of it has been known for many centuries, is a dialectic or Canarese form of the more ancient name of Chera. The earliest mention of the modern name of Malabar or Malayalam ("the mountain region") is found in the Μαλέ of the later Greeks. Cosmas Indicopleustes (545 A.D.) speaks of "Male, whence the pepper comes." The full name Malabar seems to have been given by the Arabs. Ibn Batuta has Mulaibar; Marco Polo, Melibar. The affix bar has been artificially derived from the Sanscrit vara, "a

region." The termination might with more reason be the Persian bar or Arabic barr of Zanzibar. It is, however, ultimately identical with the final syllable of Marwar, Dharwar, &c., "continent," or "coast;" and is probably an indigenous word. Some say that Malayalam mean "hills and waves." This name has been also indentified with the Mo-lo-kiu-cha (Maulacoota, or Malayakuta) of Hwen Thsang. Another but very improbable derivation is from Mazhay "rain." "Zamorin" is from the Sanscrit Samoodra "the sea;" the "Lord of the seas." The Malayalam title is Koonnala-kon, "Lord of the hills and waves." Koonnoo = a hill; ala = wave; kon = lord. Dolmens and similar relics abound in the district. There are numerous copper-plate grants, mostly in the Vattezhoottoo character. Curious rock-cut sculptures are found in this district. Cadaloondy 3½ miles south of Beypore is supposed to be the Tyndis of Ptolemy. The detached mass of the ghauts south of the Coimbatore gap is supposed to be Ptolemy's Bittigo. In old Tamul a prominent mountain in this mass is called Pothigay. Large stores of Roman coins have been found in Malabar, and it has been stated that there was a Roman temple of Augustus and a garrison of soldiers at Muziris, which is identified with Mooyaricode or Cranganore. Cosmas (beginning of the sixth century A.D.) mentions the Christians of "Male." He names as the principal seaports on this coast, famous for trade, "Parti," "Mangarvuth," "Solopatam," "Nalopatam," and "Pondupatam." Kerala is mentioned in the Inscription of Poulakesy of the Western Chalookyas as possessing a chief who was conquered by that sovereign. This was in the fifth century A.D. Mayoorivarmah, the first of the Cadambas of Banavausy is said to have been King of Kerala and Kowrashtraca Desha. In the reign of Mayoorivarmah's son, Kerala and Tooloova are separately mentioned. This helps to confirm the tradition current on the Western Coast as to the antiquity of Kerala. The only native historical documents known to exist regarding the Western Coast are the Kerala Mahatymam and its offspring, the Keralotpatty (Kerala Ootpatty). Local chronology is always referred to the Collam Andoo or era of Collam. The year is divided into twelve months named after the signs of the zodiac, commencing in the middle of September. See the article in Vol. I on Money, Time, Weights and Measures. A reference to Vol. III will show a complete list of all the places containing antiquities in this district.

12. *Population.*—In 1802, the population was estimated at 465,594; in 1823, at 927,705; in 1837, at 1,165,489; and in 1861-62, at 1,709,081. In 1871, a careful census disclosed a total of 2,261,250 persons; and, in 1881, the number rose to 2,365,035; average density, 410 to the square mile. Divided according to race, the number of Hindoos was in 1881 1,669,271; of Mahomedans, 652,198; of Christians, 43,196; of Jains, 157; and of "others," 213. Among Hindoo castes, Brahmins numbered 47,683; Cshatriyas, 1,509; Chetties (traders and cultivators), 22,044; Nayars (Vellalars), 348,169; Teeyars, 572,231. The early history of the Moplahs (converts to Islam from various castes, like the Lubbays of the eastern coast), is not accurately known. The best account is given in the Tahafat-ool-Moojahideen written in the 16th century. It corroborates the tradition current on the coast of Cherma Permaul's conversion to Islam, of his setting out for Mecca, of his landing at Shahr on the Arabian coast, of his proceeding thence to Zafhar where he died. Before his death he had papers prepared and directed to the chiefs of Malabar, and with these credentials Malik Ibn Dinaur and family set sail for the coast and were received cordially by the chiefs to whom the letters were addressed. The first mosque is said to have been erected at Codangalore (Cranganore) the late Permaul's head-quarters. The next at Collam (Quilon) in Travancore. The third at Mount Delly. The two mosques next erected are said to have been located at Baudoor and Mangalore (both in the present district of South Canara). The sixth was placed at Tarfattan (named by Ibn Batuta 13th century A.D.), which is believed to be the place now known in the maps as Shreecundapooram in the Chiracal Talook of Malabar. The seventh was built at Dharmapatam near Tellicherry. The eighth at Pantalaying or the northern Collam near the modern Quilandy, and the ninth and last at Chauliam close to the terminus of the Madras Railway at Beypore. Some of these mosques still retain their ancient endowments. It was the policy of the Zamorin to encourage trade with foreign countries; and in course of time the settlers, their descendants and converts, acquired power on the coast. Hindoos found an easy refuge from their own stringent caste laws, which debarred them from seafaring pursuits, in the Mahomedan regulations. It is known from the Dutch records, that in the 16th and 17th centuries the Zamorin encouraged the work of conversion. From the Mahomedan ranks alone could his boats be manned, and change of faith was the simplest means of providing sailors to cope with the Portuguese at sea. When this need had passed away, the Moplahs still remained, adding much by their industry to the material wealth of the country. Politically the Moplah element has been the occasion of serious inconvenience upon the West Coast, the relations between the Nayars and the Moplahs being seldom satisfactory; whether with regard to land questions or the affairs of ordinary life. These matters have been explained above in the history. A few members of the Nasrauny or Syrian sect of Christians are found in the southern extremity of Malabar, who ascribe their origin to the preaching of St. Thomas the Apostle. They have survived here and in Travancore the bitter persecution of the Roman missionaries. The Eurasians on this coast are the descendants of the Portuguese, Dutch, French, and early English settlers; the names of the Portuguese grandees still live in the descendants of their servants and followers. The proportion of Hindoos in the total population is 70·5 per cent. There are no Booddhists or members of the Brahma Samaj. The Syrian Christians have one church in the south of the district. The Roman Catholics have many churches The existing mission was founded by the Carmelite Order in 1656. The place of the Carmelites was taken by the Jesuits in 1879. Nearly the whole of Malabar forms part of the jurisdiction of the Bishopric of Mangalore, while the remainder is under the See of Veerapoly, an inland village of Travancore. Besides primary schools, the Christian Brothers have three convents —at Cannanore, Calicut, and Cochin. From Cochin to Cavvye, in the north, there are native Catholic communities, whose chief occupation is fishing and cultivating vegetables. The Protestant Basel Mission, established in 1839, has founded churches and schools at Cannanore, Tellicherry, Calicut, and Palghaut, with branch establishments at Chombaula, south of Tellicherry, and Codacal, near Vetatapoodiyangaudy. A steady increase is observable in the native Christian population; thus in 1856-57, it was 23,614; in 1861-62, 27,539; in 1866-67, 30,435; and in 1871-72, 41,642. The Census Report of 1871, however, only returns the number of native Christians at 32,280. This increase is due chiefly to the conversion of low-caste Hindoos, who gain in social position by the change. There are said to be four classes of Hindoo temples in Malabar, viz., ancient temples founded by Parashoorama, temples founded by the Rajahs, temples founded by village communities or individuals, and temples founded by devotees from alms received. In the language of the people, the manager of a temple of the first two classes is said to be subordinate to the temple, whilst in the last two classes, the temple is said to be subordinate to the manager. The general superintendence of all endowments is vested in the Sovereign and is termed Melkoyima. When the sovereign power of Malabar Rajahs ceased to exist, the Melkoyima vested in the British Government. The chief offices in the temple are termed Ooroyma, Samoodayam, Cauroyma, Shaunty and Pauttam. The Devasom is a corporation sole and acts through its Ooraular or managers. If there is a difference of opinion between the Ooraular, the will of the majority prevails. The Devasom can sue and be sued only in the name of its Ooraular. The Ooraular have no authority to alienate trust property, but they may create subordinate tenures in accordance with local usage, and raise encumbrances if money is 'bonâ fide' required for the purposes of the Devasom. The Ooraular have no authority to transfer their office and its duties together with the trust property to a stranger. There are 5 municipalities in Malabar—namely, Cannanore, the most northern seaport, and a military cantonment, with a pop. (1881) of 26,386; Tellicherry (pop. 26,410); Calicut, the capital, with 57,085 inhabitants; Cochin (pop. 15,698); and Palghaut, the largest inland town of Malabar (pop. 36,339),—all of which see separately. Other towns and villages of importance are also described in separate articles, but the populations given of these places are not those of the actual towns and villages, but of the deshoms or circles in which they are respectively situated.

13. *Land Revenue and Agriculture.*—The amshom, though now the usual territorial sub-division of Malabar, is not of local origin; naud (county) and deshom (village) are the local divisions of the coast districts. The latter is in all respects the Hindoo village, except that the population of these districts is not collected together in clusters of houses, but is scattered over their cultivated land, along road sides, and the like. On the introduction of the land revenue system after the Mahomedan conquest in 1784, the country was, after Mysore model, divided into hoblies. These were found too large for the English ryotwarry and talookwarry administration, and were divided so as to constitute 428 amshoms, comprising 2,790 deshoms or villages. From the earliest times, there was a complete political organization among the Shoodras of Malabar. The unit was the deshom presided over by the Deshavauly. A number of deshoms

constituted a naud, which was presided over by a Naudvaly or local chieftain who again was subject to the Rajah. Tradition divides the whole coast from Gocarnam near Goa to Cape Comorin into 17 nauds, but at the time of Hyder's invasion of Malabar in 1765, there appear to have been 28 nauds in Malabar proper, exclusive of the Tooloo country, Cochin and Travancore. The Chief Rajahs in Malabar proper were the Cola king (Colattiry) and the Zamorin of Calicut (Tamoodry). The subordinate Rajahs were the Cottayam, Cadatnaud, Cooroombranaud, Beypore or North Parapnaud, South Parapnaud, Valavanaud (Vellattiry), Palacaud, Bettatnaud and Chavacaud (Poonatoor). Some of these subordinate Rajahs were simply Naudvalies, who had become stronger than their neighbours. All acknowledged the suzerainty of either Colattiry or the Zamorin. It would be possible in the present day to obtain a list of some sixty Nayar families whose ancestors were originally Naudvalies or Deshavalies and whose social prestige is still recognized. The Malabar Rajahs derived their revenue not from a share of the produce, but from demesne lands, escheats, customs and a poll tax on foreigners. At the same time, tradition points to a period when a sixth share of the produce was paid as a kind of protection fee to a constituted body of police. Possibly, this fee was only paid by foreign settlers; possibly, it was paid to the Chera potentate so long as the Malabar Rajahs acknowledged his supremacy and was discontinued after his disappearance. Information on this subject is scanty. Side by side with this organization, which was partly military, was a more directly civil organization of which the unit was the Tara. The Tara was the village community of Shoodras owning lands in common and presided over by its elders (Carnavar), who met together in assembly (Coottam). The constitution of the Brahmins was not dissimilar. The gramam was the village community and its affairs were managed by the Sabhayogam or council of elders. The custom of cultivating fields in rotation, which is not yet extinct, is a relic of the ancient system of corporate ownership and periodical re-distribution of fields. The first disruption of the Tara was probably the separation of the King's family Covilagam from the community. In process of time, the Taras were divided into Tarawauds, each presided over by a Tarapaud or head of a family. And as among the Shoodras, the village communities merged into joint families, so among the Brahmins the Gramams merged into patriarchal families. Corporate ownership passed from the larger unit of the village to the smaller unit of the family. And at the same time there was a tendency to merge the civil in the military organization. Hence arose a kind of feudal relation between the Rajah or Naudvaly, who had ripened into an individual owner of property, and the Tarawauds. In other words, the rent service which all were bound to render in time of war to the military chief was gradually commuted into a rent charge. The Rajahs and petty chieftains became landlords. The Nayars became tenants with perhaps a permanent right of occupancy. Where the actual cultivator under the devasoms and the Brahmins was exempt from military conscription, a system of landlord and tenant was probably introduced at an earlier period and, whatever the theory may have been, the practice was to retain the same tenant so long as he improved the land and paid the rent.

14. Until recently it was the unconditional opinion that all land in Malabar was, by immemorial inheritance, private property in fee-simple (jenm) and it was further asserted that no more absolute proprietary right, no more indefeasible title, could well be conceived than that of the Malabar jenmy. An enquiry since made however by a Commissioner specially deputed to enquire into the grievances of the Moplah tenants has revealed the fact that the Malabar proprietary right supposed to be vested in the jenmy is to a great extent to be credited to the British Courts of Justice. Fee-simple titles according to European ideas did not exist before the advent of the British. The people lived then divided into classes of whom the jenmies corresponded very nearly to the Zemindars of the rest of India. They were entitled to their fixed customary share of the produce and to no more. The real power in the land was vested at that time in the Naudcoottams or popular assemblies, and it was on the content and well-being of the classes beneath him that the jenmy relied for his wealth and position. If the jenmy acted oppressively and provoked the enmity of the kanakar (supervisors, protectors) it was quite possible for them to transfer their allegiance and the jenmy's customary share of the produce to some one else. This, as matter of fact, often happened, and the idea that the kaunom holder has a right to do so still has not yet even quite died out. The English courts themselves have preserved the principle that a holder subordinate to a jenmy is entitled to compensation for improvements if evicted from his holding. Such subordinate holders, even the lowest of them, have still also the power to subdivide, sublet and sell the whole or portions of their holdings. These two valuable principles have descended to them from the ancient organization, in which classes or castes were told off each to perform certain well understood customary functions in the body politic. In the exercise of these functions they were allowed the greatest possible liberty and could sell among themselves the fruits of their labours. Below the jenm, or full proprietary right as it is now understood, numerous subtenures of graduated value are found; from a permanent leaseholder on a nominal rent to a rackrented tenant-at-will. There are many varieties of these tenures, each with its own name and conditions.

15. The following sketch deals with all the more important forms of transfer of land. The simplest mode of transfer is the Veroompauttom or simple lease, in accordance with which, after deducting the bare cost of seed and cultivation, the whole of the estimated net produce is payable to the landlord. The tenant is in fact a labourer on subsistence wages, though it suits his landlord to bind him by a contract. It not unfrequently happens that the rent which he covenants to pay is more than the land can yield, and in this case a burden of debt accumulates round him, and his position is little better than that of a slave. If he incurs his landlord's displeasure, a decree for eviction and arrears of rent follows, and his means of livelihood are gone for ever. The picture here drawn is the extreme. There are other Veroompauttom leases in which the old custom of reserving one-third of the net produce (after deducting the cost of seed and cultivation) for the tenant is retained and the remaining two-thirds are payable to the landlord. Here there is a real contract between the parties, beneficial to both, which may remain in force for years. The aim of the tenant will be to convert his Veroompauttom into a Kaunampauttom, which will give him greater fixity of tenure, and he may in time effect his object. In some simple leases, a year's rent will be paid in advance at the commencement of the tenancy and the lease will then be termed Moonpauttom, Talapauttom, or Kattookaunam. On the determination of the lease, the advance must be refunded. A simple tenant will have no right to compensation for improvements except under special contract. But for a dwelling house, which he erects with the express or implied consent of his landlord, he will be entitled to compensation on eviction, even though the word coodiyiroop is omitted in the lease. Next in order of superiority is the kaunom, in accordance with which a sum of money or paddy is deposited with the landlord, on which the tenant is entitled to interest, which varies from 3 to 5 per cent. The rent payable to the landlord—Kaunampauttom—will not be more than one-half of the net produce after deducting the cost of seed and cultivation. The tenant is entitled to be left in possession undisturbed for 12 years and to be reimbursed for all unexhausted improvements when evicted. If at the end of 12 years he renews his kaunom, he must pay a fine or premium, which, according to ancient usage, ought not to exceed 20 to 25 per cent. of the kaunom or one year's rental at the option of the landlord, but which in the present day is usually fixed according to the landlord's caprice. After renewal, the tenant is entitled to another term of 12 years. If during the term of a kaunom a further sum of money is advanced by the tenant, it is termed a Poorangkadom, and he is entitled to deduct from the rent the interest on money so advanced. If the tenant is not prepared to make the advance, the landlord will have recourse to a stranger in whose favor he will execute a mailkaunom. The maitkaunom-holder will be entitled to redeem the kaunom holder at the expiry of his term. Akin to the kaunom is the panayam or simple mortgage with or without possession. The terms of a panayam may be similar to those of a kaunom, but there are no implied covenants for quiet enjoyment for 12 years nor for compensation for improvements. One form of Panayam is called the Oondarty-panayam, because it extinguishes itself. Within a term fixed by the parties, both principal and interest will be extinguished by the usufruct and the land will revert free of encumbrance to the mortgagor. The Koori-Kaunom or reclaiming lease for planting differs only from the kaunom in that no advance is made to the landlord. The tenant has a right to quiet enjoyment for twelve years, and to compensation for improvements which are classed under three heads, viz., fixtures, tillages, plantations. The next form of transfer is the Otty—Veppoo—Palishamadak, which is a usufructuary mortgage, the interest on which almost, if not quite, extinguishes the usufruct, and in which nothing but a pepper-corn rent is reserved to the mortgagor. The mortgagee has all the rights of a kaunom tenant, and in addition has the right of pre-emption if the landlord wishes to part

with his freehold. Akin to the Otty is the Peroovartam, under which form of mortgage the land is mortgaged for its full market value, and can only be redeemed on payment of the full market value at the time of redemption. The tenant has the benefit of any rise in the value of land. The last form of transfer to which the other three already mentioned successively lead is the Attiputt or final sale. But previous to the execution of the final deed of transfer, one or more preliminary stages are resorted to. The forms by which the owner of land parts with everything except a nominal interest are termed Keividooga-otty—Otty Coompooram—Nir moodal—Jenm panayam. The better opinion seems to be that when once the preliminary stage is entered on, the equity of redemption is lost, but that should the intending purchaser wish to part with the interest already acquired, the owner has a right of pre-emption. In addition to the four modes of transfer already noticed, grants of land are frequently made either for a consideration or as a reward for services rendered in the form of perpetual leases. The grant, if made to a Brahmin, is termed Santaty Brahmasom; if made to a Shoodra of equal or higher caste, it is termed Anoobhavom or Saswatam, and if some nominal rent or right to renewal fee is reserved, Cauraymakkara or Jenm-koor. If made to a person of inferior caste, it is termed Adima or Coodima. Grants of temple lands on service tenure, i.e., on condition of performing future services, are termed Caurayma. Grants under any of these forms are said to be resumable by the grantor on failure of heirs in the family of the grantee. Deeds of gift except for religious uses are exceedingly rare. The following figures illustrate the mode of fixing the pauttom or landlord's share:—

A land is said to sow 15 paras of seed.		
Its estimated yield is seven-fold or ..	105	paras.
Deduct for seed 15 paras and for cultivation 15 paras	30	"
And the balance or maximum Veroompauttom is	75	"
The minimum Veroompauttom would be	50	"
The Kaunampauttom would be	37½	"
Interest at 5 per cent. on a kanam of 100 rupees would be 5 rupees, equivalent to	15	"
And the net rent payable would be ...	22½	"
Interest at 5 per cent. on an Otty of 250 rupees would be 12½ rupees or ...	37½	"

And the interest would exactly extinguish the usufruct. The saleable value of such land would probably be about 12 years' purchase of the net yield, i.e., 75+12=900 paras. or 300 rupees.

16. The district comprises an area of 5,765 square miles, or 5,553,855 acres; of which about 827,733 acres are under cultivation; about 2,856,362 acres are waste, but capable of cultivation; while 1,869,760 acres are uncultivable. Rice occupies 395,557 acres; gingelly and other "dry" cultivation, 432,176 acres. Rice forms the staple crop of the district, and is also largely imported. Cholam, raggy, samay are grown, but not largely; also gingelly seed, castor-oil seed, gram of several kinds, tinnay, coffee, pepper, ginger, arrowroot, cardamoms, chillies, onions, garlic, cocoanut, areca or betel nut, and cinnamon. As soon as the first showers have fallen in March or April, agricultural operations commence. The fields are manured after a slight ploughing with ashes, leaves (decayed and green), and in some places salt mud. No system of irrigation is practised beyond diverting over the fields the stream flowing down each valley. Some of the most fertile lands in the district are thus brought under "wet" cultivation. But the abundant and never-failing rainfall places the Malabar farmer beyond the necessity of artificial irrigation. Rice is sometimes sown broadcast, but is usually transplanted from nursery beds. The first or kanny crop is sown in April and May, and cut in August and September. The second or makaram (January) crop is sown in September and October, and reaped in January and February. These are the principal rice harvests, but there are intermediate crops in some places; and a third, known as poonja, is sown in February, and reaped in April or May. The greater portion of the land, however, bears only one crop. Within the last twenty years, rice cultivation has considerably extended, but very little improvement has taken place in the quality of the rice, although experiments have been tried in the district with Carolina paddy. Cocoanut gardens form one of the greatest sources of commercial wealth in the province. The exported value of cocoanut products is estimated at nearly eighty-one lakhs of rupees annually. Pepper and spices yield over a quarter of a million. Of 'dry' cultivation, rice (modan) grown on the uplands, oil-seeds (elloo), cholam, raggy, and various pulses are the most extensively grown. The elloo and modan are subject to a special land-tax. Ponam (elsewhere known as Coomry) cultivation, by burning the forests, is taxed on the area cultivated; and coffee land in the Wynaud pays 2 rupees per planted acre. The peasantry of Malabar are no exception to the general rule dividing this class into those who borrow and those who lend. The borrowers among the actual cultivators are much more numerous than the lenders and borrowing owing to certain characteristic in the prevailing tenure is rapidly on the increase. The wages of artisans and labourers have been steadily increasing. Coolies, who in 1800 earned one anna, and in 1850, two annas, made in 1876-77, 5 annas a day; and skilled workmen, whose wage in 1850 varied from 5 annas to 6 annas, earned in 1876-77 from 8 annas to 10 annas. Agricultural labourers are always paid in kind, at the daily rate of about 5 lb. of rice for a man and 4 lb. for a woman.

17. *Forestry.*—The district is divided into two forest divisions, each under a District Forest officer. One consists of Wynaud and Palghaut, and the other of the Nelambore teak plantations and the surrounding natural forests. The somewhat inconvenient arrangement of placing forests so far apart as those in the Wynaud and Palghaut under one District Forest officer is the best that can be made at present. The Deputy Conservator formerly resided at Manantoddy in the Wynaud, and the Palghaut forests were left to the care of a ranger under the Head Assistant Collector, but this arrangement was found not to answer. Under the new organization the Collector must have a superior officer as his District Forest officer at head-quarters, and the Palghaut range is too important to be left entirely to a ranger without any professional supervision, though as the range officers' knowledge of their work improves, the District Forest officers' duties will be confined to inspection and advice on difficult questions of forest management. The most important forests in the division are those of the Wynaud, which contain teak, blackwood or rosewood (Dalbergia latifolia), vengay (Pterocarpus marsupium), karamarad (Terminalia tomentosa), red and white cedar and large quantities of trees of superior descriptions. In the ghaut forests the Poon spar (Calophyllum elaturu) and the black and white dammer trees (Canarium strictum and Vateria indica) are notable features. The Wynaud forests are divided into two main blocks, known as Chedlet and Coodiracote, to which have recently been added the Periya Ghaut forests and Cangote forest and plantation (below ghaut). The Chedlet and Coodiracote forests have been under the charge of the Forest Department for years and classed as reserves, but encroachments have been frequent, and protection and working desultory and unmethodical. The Chedlet forest has now been notified for settlement and reservation under Section 4 of the Act and the other blocks will follow. Valuation, surveys, preliminary working plans, and systematic working and protection against fire and damage by cattle will follow and make possible the improvement and development of this magnificent forest property, which is second to none in the Presidency, or probably in India. The forests are rich in minor produce —Cardamoms (Elettaria cardamomum), ginger (Zingiber officinalis), cinnamon (Cinnamomum iners), dammer, and other fruits, gums, and resins abounding in the ghaut forests, whilst those above ghaut produce a good supply of honey and wax, gallnuts, and other fruits. The Wynaud forests including Cangote are under the immediate charge of a Sub-Assistant Conservator, whose head-quarters are at Manantoddy. He is assisted by a ranger and three foresters in charge of Chedlet, Coodiracote Periya and Cangote forests, respectively. There are thirteen forest guards in the sub-division. The Begoor block of the Coodiracote forests is under special fire protection. The forests of the Palghaut range are known as Chenat Nayar and Walayaur. The former is a block of hill forest which formed portion of the Chenat Nayar escheat, and the latter consists of two pieces of forests in the plains called Poolampaur and Varlapaudy, purchased some years ago with the special object of maintaining the supply of wood-fuel to the Madras Railway Company. The Chenat Nayar forest contains fine timber trees similar to those already enumerated in the ghaut forests of the Wynaud, to which may be added Hopea parviflora (iroombogam), Isonandra acuminata (the Indian guttapercha tree), Xylia dolabriformis (iron wood), and Lagerstrœmia microcarpa (venteak). The Walayaur forests contain coppice teak, vengay and blackwood, but the chief growth is Acacia, Albizzia, and Zizyphus, with inferior descriptions, which have been allowed to supplant the more valuable species, the growth of which it is now the object to foster. The head-quarters of the ranger is at Palghaut. He is assisted by seven forest guards. The District Forest officer's head-quarters are at Calicut. The chief feature of the Nelambore division is the magnificent teak plantations, which extend over 3,368 acres, have cost Rupees 11,19,040, yielded Rupees 8,55,773, and will, it is estimated, be worth Rupees

90,00,000 in 1900. They have formed subject of several special reports, of which that of the late Conservator, Colonel Beddome, contains the fullest and most reliable information. It is proposed to extend them by 1,000 acres, chiefly with a view to growing poles from coppice, which are in great demand on the coast for export to Bombay and the Persian Gulf. The surrounding natural forests are rich in timber trees, but the mature trees of the more valuable descriptions have been mostly felled, though there is still plenty of fuel (Xylia dolabriformis). Experimental planting of the Mahogany, Ceara, Hevea, and Landolphia rubbers, Ipecacuanha, Sappan, and several varieties of bamboo has been undertaken with fair prospect of success. The District Forest officer, whose head-quarters are at Nelambore, has also charge of the sale depôt at Cullye near Calicut. He is assisted by a ranger, two foresters, and six forest guards.

18. *Commerce and Trade.*—The district is fairly supplied with main lines of communication. Besides cart-tracts, there are 400 miles of good road, costing Rupees 70,000 annually to maintain. 1,570 miles of road were maintained during the year 1883-84 at a cost of Rupees 1,68,700 and odd. An extensive seaboard, with backwaters running parallel to it, affords easy means of transit; whilst the artificial canals made to connect these backwaters give a continuous water communication along the coast, of 77 miles from Cochin to the railway station of Tiroor, of 43 miles from Beypore to Badagara, and again of 22 miles from Belliapatam to the frontiers of South Canara. The Sultan's canal, connecting the Cavvye and Payyangaudy rivers, is about 2 miles long, cut through low paddy ground. It was made by Ally Rajah of Cannanore, when he had the management of the Chiracal country under Hyder Ally in 1766, to secure inland navigation from the village of Kakkaut, 2 miles north-east of Cannanore, to Neeleshwar in South Canara. Previously all boats had to round Mount Delly, a route impracticable during the monsoons. The canals are on an average between 10 to 12 feet broad, and 1 or 2 to 3 and 4 feet deep at low water, and are intended only for small boats. None of them are in a state of efficiency at all times, and 8 miles of cutting are required to connect the Tannore Canal with the Cadalvandy and Beypore rivers. It is, however, in contemplation to complete a good navigable canal from Tiroor to Cochin, and push the work on eventually from Badagara to Mahé, Tellicherry, and Cannanore. The Madras Railway traverses the southern part of the district for a total distance of 90 miles, from Walayur to Beypore. Except the manufacture of cloth, tiles, bricks, &c., in the German mission establishments at Calicut and Cannanore, and that of coarse cloth and mats at Palghaut, there are no local manufactures deserving of mention. The weaving of calico, which derived its name from Calicut, seems to have altogether died out, while unsuccessful attempts have been made to manufacture canvas at Beypore, and silk at Palghaut. The trade of the district is carried on chiefly at permanent markets, and the principal seats of commerce are Cannanore, Tellicherry, Badagara, Calicut, Palghaut, and Cochin. In 1883-84, the value of the imports amounted to Rupees 1,65,56,952, of which Rupees 58,83,556, was for rice; that of the exports to Rupees 2,92,01,810 of which Rupees 96,83,514 represented coffee. No native banking establishments exist in the district, but every Malayaly is either lender or borrower, and the trading community readily avail themselves of the European banks at Calicut, Cochin, and Tellicherry. The pepper trade is older than the Arabian Nights, and probably dates from before the Christian era. In 1797, a plantation was opened by Government on the waste lands at Randatarra, a small tract lying between Cannanore and Tellicherry, for the cultivation of special products, such as coffee, pepper, cinnamon, cassia, cotton, sugar-cane, &c. The cinnamon plantation, the only one in the district, is still in existence, but the estate was laid waste by the Pychee rebels in 1803, and was subsequently sold by the Company. After the termination of the rebellion in 1805, and the pacification of the country, the Sub-Collector, Mr. H. Baber, turned his attention to coffee-planting in Wynaud, and by 1840, this important industry was fairly established. Since 1850, it has increased greatly and continues to prosper. Including the portions of the Wynaud talook transferred to the Neilgherry District, there are about 40,000 acres planted, of which 27,000 belong to Europeans. Gold and iron are found in the district, and laterite is quarried.

19. *Famine, Flood, &c.*—The district has hitherto enjoyed immunity from extensive natural calamities, such as blight, flood, or drought, and such a disaster as an entire failure of the south-west monsoon has been unknown to the present or preceding generation. When, however, the neighbouring districts to the east suffer from scarcity, as in 1866-67 and 1877-78, this province, which ordinarily disposes of some of its produce in exchange for grain, is affected by the prevalence of high prices. Scarcity was felt in 1866 in the early part of the year, when the prices of all articles of food rose abnormally high. Towards the end of 1876, owing to the scanty fall of rain, the season was most unfavourable, and there was a serious failure of the makaram or second rice-crop, which, with the demand from outside, materially affected prices, though the import trade in grain was unusually active in supplying, not only Malabar, but (through Malabar) several of the famine-stricken districts to the eastward.

20. *Medical.*—Malabar, like the rest of South-Western India, is characterised by a heavy rainfall, a humid climate, and a moderate temperature. The south-west monsoon sets in early in May, bringing with it heavy clouds, which bank up against the Ghaut range. This is the hottest time of the year; the air is close and heavy and frequently overcharged with electricity. Early in June "the monsoon breaks," and for three to four months the rains are frequent, heavy, and often continuous for several days. The rainfall in June, July, and August averages 80 inches, or two-thirds of the total fall for the year. The temperature improves, and the climate during the rains is pleasant and healthy. By October, the rains have slackened, and the north-east monsoon sets in, bringing cool breezes from the wet table-land of Mysore and Coorg, and reducing the temperature. In December, the thermometer sometimes falls to 60° F. in the shade. The hot weather commences as the north-east monsoon fails (about February), and continues till May. In March and April, there are frequent thunderstorms, betokening the coming of the south-west monsoon. The thermometer in the hot weather rises to 92° F. in the shade. On the whole, the climate is healthy. The principal diseases are small-pox, dysentery, and fever. The reported death-rate in 1883-84, from a not very trustworthy source, was 23·7 per mille. Cattle suffer from murrain and foot-and-mouth disease, but no epidemic rinderpest has been recorded.

21. *General Administration.*—By the treaty of Seringapatam, concluded on the 18th March 1792, Malabar was ceded along with other tracts to the East India Company, and placed under the Bombay Presidency. Several chiefs who had been in quasi-political relations with the Company previous to the cession, were continued in the position of feudatories for a few years, and exercised more or less independent authority within their own limits. This led to difficulties culminating in the Cotiote Pychee rebellion. In 1796, a commission was appointed, consisting of 4 members, with which the supervisorship was incorporated. The feudatories were deprived of all administrative authority, their lands being secured to them in full proprietary right, and a special allowance (malikhana) made to them. The two superintendentships were abolished in 1800, and a number of European Collectors were appointed, one to every district or talook. At the end of that year, the province was transferred to the Madras Presidency. The commission was finally abolished in September 1801, and the district placed under a Principal Collector and 3 Subordinate Collectors, who are now respectively designated Sub-Collector, Head Assistant Collector, and Special Assistant Collector; besides whom, there are one or more European Assistants, one Deputy Collector in charge of the Treasury at the Sudder (head-quarters) station, and 3 separate Deputy Collectors in charge of the Wynaud, Ponnany and Cochin talooks respectively. A Special Assistant Collector for the Moplah country has his head-quarters at Malapooram, the military outpost; while a European Deputy Collector, who is also a District Moonsif, has charge of the mountainous talook of Wynaud, and resides at Manantoddy. Malabar has been, from time to time, subject to certain special revenue arrangements, including a tobacco monopoly, a land-tax on pepper, and a Government farm of cardamoms, gold-washing, and the like. All these have now been abolished. The tobacco monopoly, which lasted for forty-six years, and yielded at one time Rupees 8,00,000 per annum, was given up in 1853, as it led to much smuggling, lawlessness, and loss of life. The pepper land-tax was surrendered in 1806, as the spice already paid a very heavy transit duty, which was abolished in 1846, and the minor farms followed in 1868. The following table shows revenue and expenditure:—

—	1793.	1850-51.	1860-61.	1870-71.	1880-81.
	RS.	RS.	RS.	RS.	RS.
Revenue	9,25,140	28,40,510	29,12,790	40,26,140	43,71,750
Expenditure	...	5,00,820	6,06,770	5,67,030	7,62,340

The principal source of revenue is the land-tax, which yielded in 1860-61, Rupees 17,51,370, in 1870-71, Rupees 19,18,320, and in 1883-84, Rupees 21,22,065 (including cesses). In 1802, the judicial was separated from the executive administration. A Provincial Court was established at Tellicherry presided over by three Judges, two of whom periodically went on circuit. Zillah Courts were

established at Tellicherry and Calicut, and a Register's Court at Calicut. In 1812, an auxiliary Zillah Court was established at Cochin. All these Courts were abolished in 1843. Civil and Sessions Courts were established at Tellicherry and Calicut, a Subordinate Court at Calicut and Principal Sudder Ameens' Courts at Tellicherry and Cochin. In 1862, the Subordinate Court at Calicut was converted into a Principal Sudder Ameen's Court. In 1873, the designation of the Courts was changed. The Civil and Sessions Judges became District and Sessions Judges of North and South Malabar. The Principal Sudder Ameens became Subordinate Judges. District Moonsifs' Courts were established in 1816. Previous to this, there had been Commissioners' Courts at some of the outlying stations. There were a Mufti Sudder Ameen's Court and a Pundit Sudder Ameen's Court at Calicut and Tellicherry. The latter was abolished in 1853 and the former in 1862. The number of District Moonsifs' Courts has varied from time to time. Malabar has always been a litigious country. Roughly speaking, not less than 12,000 regular suits and 18,000 small causes are tried every year, and the Appellate Courts deal with not less than 1,500 appeals. The judicial courts consist now of the 2 district courts of North and South Malabar, 3 sub-courts, 18 district moonsifs', 1 District Magistrate's, 2 Joint Magistrates', 3 Assistant Magistrates', 4 Deputy Magistrates', 32 Sub-Magistrates' (including Talook Sheristadar Magistrates) and 5 Benches of Magistrates. There is a central jail at Cannanore, besides 3 District Jails, at Tellicherry, Calicut, and Cochin, and 22 lock-ups. The total cost of this department to Government in 1882 was about Rupees 82,000. The aggregate strength of the Police in 1883-84 was 1,504 men, costing Rupees 1,72,946, giving 1 constable to every 3·8 square miles and to every 1,572 inhabitants. In 1883-84, the district contained a total of 980 schools, with 43,500 pupils. The high-class institutions are the Government College at Calicut, the Brennen Zillah school at Tellicherry, the Palghaut High School, and the "Kerala Vidya Shaula," recently established by the Zamorin, for the instruction of the young noblemen of his family, and of other influential persons in the district. Nearly 196 schools are exclusively confined to Moplahs. There are several printing-presses at Calicut and Cochin, and at the latter port are published two English and one Malayalam newspaper.

MYSORE.

[*For description of this Native State, see the article on Relations with Neighbouring States and Provinces, Chapter I.*]

NEILGHERRY HILLS.

Description.—The district of the Neilgherries (or 'Blue Mountains') until recently consisted exclusively of a mountain plateau, lying at an average elevation of 6,500 feet, with an area of about 725 square miles. In 1877, a portion of the Wynaud talook of Malabar, at an average elevation of 3,000 feet, was added to the south-west of the district, which now may be said to lie between 11° 12′ and 11° 37′ N. lat. and 76° 18′ and 77° 5′ E. long., and to occupy an area of 957 square miles. Its extreme length from north to south is 29 miles; width from east to west, 51 miles; population in 1881, 91,034; area at that time, 957 square miles. It is bounded on the north by Mysore; on the east by Coimbatore District; on the south by portions of Malabar and Coimbatore; and on the west by Malabar.

2. *Physical Geography.*—The original district consisted of a tableland enclosed between two ranges of hills. These rise abruptly for two-thirds of their total height, presenting from the plains below almost the aspect of a wall. The interior of the plateau consists chiefly of grassy undulating hills divided by narrow valleys, each of which invariably contains a stream or a swamp. In the hollows of the hillsides are found small beautiful woods, locally known as sholahs. The summit or plateau presents a most varied and diversified aspect. Although the undulating surface nowhere approaches the character of a champaign country, and frequently breaks into lofty ridges and abrupt rocky eminences, it may be called a plateau, and is practicable to a degree seldom observed in mountain tracts of equal elevation elsewhere in India. On all sides, the descent to the plains is sudden and abrupt, the average fall from the crest to the general level below being about 6,000 feet, save on the north, where the base of the mountains rests upon the elevated land of Wynaud and Mysore, which, standing between 2,000 and 3,000 feet above the level of the sea form, as it were, a step by which the main fall towards the sea is broken. From both of these elevated tracts, the Neilgherries are separated by a broad and extensive valley through which the Moyaur river flows after descending from the hills by a fall at Nedoowuttam in the north-west angle of the plateau; and the isolation of this mountain territory would be complete, but for a singular sharp and precipitous ridge of granite peaks, which projects from the base of a remarkable cone called Yerramullay on the western crest of the range, and, taking a west by north course towards the coast, unites itself with the Western Ghauts. In the south-west angle of the Neilgherry are the Coondahs; spurs from this range run to the southward to a considerable extent. The Ochterlony valley and the recently added amshoms of South-East Wynaud lie 3,000 feet lower, and consist of a series of broken valleys, once forest-clad throughout, but now studded with coffee gardens. The highest peaks are—Dodabetta, 8,728 feet; Goodicaud, 8,502 feet; Bevoybetta, 8,488 feet; Makoorty, 8,402 feet; Devasholahbett, 8,380 feet; Coondah, 8,353 feet; Coondahmoogy, 7,816 feet; Ootacamund, 7,361 feet; Tambrabetta, 7,292 feet; Hokkabetta, 7,267 feet; Oorbetta, 6,915 feet; Kodanaud, 6,815 feet; Devarbetta, 6,571 feet; Kotagherry, 6,571 feet; Coondahbetta, 6,555 feet; Dimhutty, 6,330 feet; Coonoor, 5,886 feet; Rungasawmy Peak, opposite the Guzzdhutty Pass, 5,948 feet. There are six well-known passes or ghauts by which the district communicates with the neighbouring provinces, viz., the Coonoor, Seegoor, Goodalore, Sisparra, Kotagherry, and Soondaputty. The first three and the fifth are practicable to wheeled traffic. The Coonoor ghaut is the principal approach; and the road is of easy gradient and well made. The Kotagherry ghaut has been much improved as to gradient, and ranks next to Coonoor and Goodalore in point of importance. The Seegoor and Goodalore ghauts give access to Mysore and Wynaud. The Sisparra or Coondah ghaut is now abandoned, owing to the opening of a new road from Ootacamund to Nedoowuttam, which passes along a new ghaut which joins the Government imperial roads at Goodalore running down the Carcoor ghaut at Nelambore and Mambut. The only rivers in these hills are the Moyaur, which rises at the foot of the Neilgherry peak and flows into the Bhawany river near Danayacancottah in Coimbatore; the Pykara, which, after taking a northerly course discharges itself into the Moyaur (distance from Makoorty peak to the falls, about 10 miles); and the Calicut. Near the travellers' bungalow, the Pykara is about 40 yards wide during dry weather, and contains a succession of deep pools divided by shallows, in which are large boulders of rock. The bed, which is gravelly on the fords, is generally covered by a fine red sand, with which the water appears impregnated. The Calicut flows into the sea at Beypore near Calicut town. The head of this stream is formed by the drainage of the elevated tabular mass of hills, which occurs to the north-west at Nedoowuttam; and though it descends the face of the hills at no great distance from the fall of the Moyaur, the intervention of a sharp spur diverts its course into an exactly opposite direction, forcing it over the ridge called the Carcoor or Yerramullay Hills, to find its way to its embouchure on the western coast. The only lake of note is that at Ootacamund (7,220 feet above the level of the sea), which is nearly 2 miles long. It is formed by an artificial embankment, thrown across the western outlet of the valley, by which the waters of the Dodabetta streams are dammed up. This lake is one of the distinctive features of the station, and round its banks is the favourite drive. Similar lakes might, no doubt, be formed in many other valleys. There are no indigenous fish on the plateau, except minnows. Tench and carp have been successfully acclimatized. In the Wynaud the mahseer is found in the upper waters of the Moyaur and Calicut. The plateau is chiefly grass land studded with sholahs or small woods. On the Coondahs, these sholahs increase in extent; and on the lower slopes, the forests become dense with fine timber-trees, such as saul (Shorea robusta), kino (Pterocarpus marsupium), jack (Artocarpus integrifolia), blackwood (Dalbergia latifolia), and teak (Tectonagrandis). The forest area in the Wynaud portion of the district is about 150 square miles; on the higher ground, Eucalypti and the Australian wattle have been largely planted. The forest revenue is about Rs. 50,000. Large game, especially tiger, bear, samber, and ibex were once very plentiful on the plateau, but constant and too often unsportsmanlike shooting has reduced the number sadly. Leopards, hyænas, wild boars, porcupines, jungle sheep, and hares are still found in fair abundance, as also woodcock, snipe,

spur-fowl, jungle-fowl, and pea-fowl. A close season has been established by law (1879) for the preservation of deer and other useful species of game. There have been no deaths by wild beasts or snakes recorded since 1875.

3. *History.*—Nothing is known of the early history of these hills, and the local tribes are singularly destitute of traditions reaching back beyond comparatively recent times. Cairns and cromlechs found all over the upper plateau put it beyond doubt that at a very early period different tribes inhabited the country. The Todahs think that their own ancestors were the original holders of the soil; but they certainly were not the first occupants. There is no evidence of there having been any sovereign ruler amongst the Todahs, but according to the other hillmen, about a century before the reign of Hyder Ally in Mysore, three chiefs ruled in Todanaud, Merkoonaud and Paranginaud, and had their strongholds respectively at Mullaycottah, Hooliculldroog and Kotagherry. It is not unreasonable to suppose that the hills formed part of the Congoodesa or Eastern Chera country, and so passed to Mysore in the 17th century. Hyder Ally appears to have seized upon two of the forts, viz., Hooliculldroog and Mullaycottah, which command the passes into the Coimbatore and Malayalam countries, and, after having strengthened and garrisoned them, to have controlled the hill tribes, and imposed upon them very heavy taxes. It is said that Tippoo, when he made his incursions into Wynaud, ascended the hills through the Seegoor ghaut, and occupied the fort at Kotagherry. The Neilgherries were first explored in 1814 by Messrs. Keys and M'Mahon of the Survey Department. Five years later, Messrs. Whish and Kindersley of the Civil Service ascended (while in pursuit of a band of tobacco smugglers) through a pass near Kotagherry, thereby becoming acquainted with the existence of a tableland possessing a European climate. A year after (1820) Mr. Sullivan, then Collector of Coimbatore, invited the attention of Government to Ootacamund as a sanitarium, and, in 1821, he built the first English house on the plateau.

4. *Archæology.*—The antiquarian interest in these hills principally centres round the rude stone monuments above mentioned situated generally in commanding situations on the summits of hills and ridges. The best bronzes and weapons have been found in Todanaud, and the next best in Peranginaud. Some of the older azrams, or funeral circles as now used by the Todahs, have been opened and found to contain weapons, pottery, &c. A large number of rude stone monuments—cairns, barrows, kistvaens, and cromlechs—are found all over the plateau, and their origin has been much discussed. The cairns are of several forms,—one commonly called the draw-well kind, consists of a circular wall ; others seem to have been regularly built up, but the circle is enclosed by a heap of rough loose stones, sometimes built more carefully on the inner side of the circle, or faced inside with larger slabs, but sloping outside into a tumbled heap. A third kind consists merely of a circle, sometimes of long stones laid round on a sort of ridge, sloping inwards, sometimes of common rough stones embedded in the surface soil. The kistvaens are situated below Kotagherry. In these is found pottery with a rich red glaze, and many of the clay figures are represented with a high Tartar head-dress. These remains are not claimed by any of the races now existing on the hills, and seem to be of considerable antiquity. One of the cairns of this description when opened had an immense tree growing out of it and over it, which was estimated to be at least 800 years old. The most numerous of these remains are the cairns and barrows, which resemble each other, and which are found most often in groups and on the tops of hills and ridges. A few may be seen on the eastern sides of the Coondahs near the Avalanchey bungalow. In recent researches, more than 40 of these have been broken up, and were found to contain bronze vessels, such as vases, urns, &c., domestic utensils, glazed pottery, and spear-heads. Similar remains are found in most Madras districts, and indeed in many other parts of India. There are traditions on these hills of an old race of Veddahs, apparently the same as the Veddahs of Ceylon.

5. *Population.*—The first enumeration of the district was made in 1848, when the population was returned at 17,057, distributed over 420 square miles, giving a proportion of 40 per square mile. According to the Census of 1881, the inhabitants in the district including South-East Wynaud numbered 91,034, dwelling in 21,590 houses. The number of hill-tribes exclusive of the Coorumbars was in 1848, 7,674 ; in 1866, inclusive of the Coorumbars, 19,891 ; in 1871, 23,364 excluding South-East Wynaud, and in 1881, they numbered 30,011, inclusive of the said tract. The number of Europeans in 1881 was 1,698 ; Brahmins, 440 ; Cshatriyas, 107 ; Chetties (traders) 2,827, and Vellalars (cultivators) 10,588. Classified according to religion, the Hindoos numbered 78,970 ; Mahomedans, 3,531 ; Christians, 8,488 ; others 44, the hill-tribes being included under Hindoos. Of the Christian population 5,211 were Roman Catholics, 3,268 Protestants, and 9 of other sects. Of the total population 61 per cent. were employed, of whom 39 per cent. were agriculturists. Many thousands of coolies come from Mysore annually to work on the coffee-gardens, and although the majority return at the end of the season, a small section remains. The principal towns are—Ootacamund, population 12,335 ; Coonoor, population 4,778 ; Wellington cantonment population 1,725. The total districts (naud) are—Paranginaud, population (hill tribes), 10,362 ; Todanaud, 8,202 ; Merkoonaud, 7,399 ; the Coondahs, 330 ; the South-East Wynaud 2,068. The large majority of villages do not contain above a few hundred inhabitants each ; and even these are groups of scattered hamlets rather than villages.

6. Five hill tribes are found on the Neilgherries, the Todahs, Badagahs, Kotahs, Coorumbar, and Iroolar ; the first three being peculiar to this range. The most interesting of all these tribes are the Todahs, who are tall, well-proportioned, and athletic. Their bold, independent carriage, and finely moulded and sinewy limbs attest that they are sprung from no effeminate eastern race ; while the aquiline nose, receding forehead and rounded profile, combined with their black bushy beards and eyebrows, give them a decidedly Jewish aspect. Their dress is as peculiar as their habits and appearance, consisting of a single cloth, a sort of toga, which they wear after a fashion well calculated to set off to advantage their muscular forms, being disposed about the person like the plaid of a Scotch Highlander. The costume of the women is much the same as that of the men, the toga or mantle being wrapped around them so as to cover the entire person from shoulder to ankle. In habits the Todahs are very dirty and indolent. They practise polyandry, a woman marrying all the brothers of a family. Females number about 3 to every 5 males. Their sole occupation is cattle-herding and dairy work. Their food consists of milk, curds, ghee, and different millets and cereals. The language is a debased form of Tamul. The Todahs worship, besides their dairy buffaloes, several deities, of which the principal are Hiredeva or the " bellygod," and the " hunting-god." They believe that after death the soul goes to Orr-noer or Am-noer, " the great or other country." The hamlets or villages of this tribe are called munds or molts, which are thus described :—" Each mund usually comprises about five buildings or huts, three of which are used as dwellings, one as a dairy, and the other for sheltering the calves at night. These huts are of a peculiar oval pent-shaped construction, usually 10 feet high, 18 feet long, and 9 feet broad. The entrance or doorway is 32 inches in height and 18 in width, and is closed by means of a solid slab of wood from 4 to 6 inches thick. This is inside the hut, and slides on two stout stakes. There are no other openings or outlets of any kind. The houses are neat in appearance, and are built of bamboo closely laid together, fastened with rattan, and thatched. Each building has end walls of solid wood, and the sides are covered in by the pent roofing, which slopes down to the ground. The interior of a hut is from 8 to 15 feet square. On one side there is a raised platform or pial formed of clay, about 2 feet high, covered with deer or buffalo skins, or sometimes with a mat. This is used as a sleeping-place. On the opposite side is a fire-place and a slight elevation on which the cooking utensils are placed. Outside, an enclosure of loose stones is piled up 2 or 3 feet high. The dairy, which is also the temple of the mund, is slightly larger, and contains two apartments separated by planking ; one part is a storehouse for ghee, milk, and curds." In 1867, the number of munds was 106, with a population of 704. In 1871, the total number of the Todahs was returned at only 693,—405 men to 288 women. In 1881, the population was returned at 675—382 males and 293 females.

7. The Badagahs are supposed to have come from the north, in consequence of famine and persecution, about 300 years ago, after the dismemberment of the Vijianugger kingdom. They constitute the most numerous, wealthy, and civilised of the indigenous tribes, and are described as being also the fairest of all. The men clothe themselves much like the natives of the plains, with head and waist cloths, a sheet being used as a wrapper, to cover the shoulders and body. The women wear a white cloth fastened by a cord under the arms, leaving bare the arms and shoulders, and the legs below the knees. The hair is thrown back and knotted loosely on the nape of the neck. The Badagahs are partial to ornaments, and wear rings, bracelets, armlets, necklets, and ear and nose

rings of brass, iron, or silver. They pay a tribute called goodoo to the Todahs. Their chief diet consists of koraly and samay, two innutritious cereals. Their language is an old Canarese dialect. In religion they are Hindoos, their principal deity being Rungasawmy, whose temple is situated on the summit of Rungasawmy peak, the easternmost point of the Neilgherry; they also worship many inferior divinities, male and female. In 1871, they numbered 19,476 souls. In 1881, 24,130.

8. The Kotahs are described as well made and of tolerable height, rather good featured and light skinned, with shapely heads and long loose hair, elongated faces with sharply defined features, the forehead narrow but prominent, the ears flat and lying close to the skull. The women are of moderate height, of fair build, and not nearly so good-looking as the men. Most of them have prominent foreheads, snub noses, and a vacant expression. The Kotahs practise agriculture and various handicrafts, and are good carriers; they perform menial offices for the Todahs and Badagahs, and, like the latter, pay a goodoo to the Todahs. They worship ideal gods which are not represented by any image. Their language is an old and rude dialect of the Canarese, but without the guttural or pectoral sound peculiar to the Todahs. The Kotahs have about 7 villages altogether. Six of these are located on the hills, and the seventh is at Goodalore. Each village contains from 30 to 60 or more huts, of tolerable size, built of mud walls, and covered with the usual thatch grass, somewhat after the style of native huts in the plains. The arrangement of the dwellings is far from neat. The floors are raised from 2 to 3 feet, with a short verandah in front, and a pial or seat on either side of the door. In 1871, the Kotahs numbered 1,112, in 1881, 1,065.

9. The Coorumbar (shepherds), the most uncivilized of the five tribes, are described as small in stature, squalid and uncouth in appearance, with wild matted hair, and almost nude bodies. They are sickly-looking, pot-bellied, large-mouthed, prognathous, with prominent outstanding teeth and thick lips. The women have much the same features as the men, slightly modified with a small pug-nose and surly aspect. They wear merely a piece of cloth, extending from under the arms to the knee; but some have only a waist-cloth. Both men and women wear ornaments of iron, brass, various seeds, shells, and glass beads as earrings, necklets, armlets, bracelets, rings, &c. Their villages are termed mottah, and are generally located at an elevation of 2,000 or 3,000 feet, in mountain clefts, glens, or forests. A Coorumba house is one long apartment, extending from 30 to 50 feet in length, scarcely 5 feet high, loosely and scantily thatched, walled around by brushwood or bamboo plaitings, and divided by the same into several apartments, each not exceeding 8 or 10 feet square. There is neither door nor door-frame, but the huts are shut at nights by placing plaitings of bamboo or brushwood against the opening. Their language is a corrupt Tamul. The various grains, chillies, Indian corn, yams, and some of the commonest vegetables are grown by them in small quantities, but, as a rule, they do not cultivate. They have a very vague form of religious belief, but they worship many natural objects. Those Coorumbar, who live on the hills, officiate as priests to the Badagahs. They are a superstitious race; and while they keep all the other tribes of these hills in awe, they themselves fear the Todahs. Besides cultivating on a small scale, they collect in the jungles several kinds of grain, fruits, soap-nuts, myrabolams, dye-barks, shed deer-horns, mouse deer, squirrels, tortoises, fish, medicinal herbs, roots, honey, and bees-wax, which they barter on the plains for grain and cloth. A gang of them are employed on the Government cinchona plantations at Nedoowuttam, and some few have been met with in the coffee estates near Kotagherry and Goodalore. In 1871, the Coorumbar numbered 613 souls. According to the Census of 1881, they numbered 1,183 on the plateau and 2,002 in the South-East Wynaud.

10. The Iroolar live on the lowest slopes and forests extending from the base of the Neilgherries to the plains, and are not, strictly speaking, inhabitants of the hills, nor are they recognized as such by the other tribes. They are tolerably good-looking, very much superior in physique to the Coorumbar, and in some respects even to the Kotahs. The women are strong and stoutly built, anything but prepossessing in appearance, and very dark skinned. The men wear no clothing but a lungooty or waistband in their own homes; but when working on the plantations, they wear cloths like other natives. The women wear a double fold of a wrapper cloth, which extends from the waist to the knees; the upper part of their bodies with their bosoms are nude. They are fond of ornaments, and wear strings of red and white beads about their necks, thin wire bracelets and armlets, with ear and nose rings. They are an idle and dissolute tribe, though in physique well adapted for hard manual labour. They use animal food of every description, and are expert huntsmen. Their language is a rough Tamul, with many Canarese and Malayalam words. They numbered 1,400 in 1871 and 946 in 1881, and live principally in the neighbourhood of one of their temples on Rungasawmy peak.

11. Of the Hill tribes, the Badagahs are the class who are in the most comfortable circumstances. They are an industrious cultivating people and are improving in material prosperity, as the improved character of their holdings and extended cultivation testify. The Kotahs, owing to their drunken and dirty habits, are decreasing rapidly. The Iroolar and Coorumbar, owing to the careless and wandering life they lead, are always poor. The Todahs are not much better off. They depend for their subsistence, partly on the produce of their buffaloes and partly on the goodoo or tribute which they have customarily received from the Badagahs and other cultivating Hill tribes. As regards their cattle, they have no longer unrestricted means of pasturage, and as to the goodoo, it is becoming more and more difficult for the Todahs to collect, as the Badagahs no longer regard them with the same superstitious feeling of awe as formerly.

12. *Agriculture.*—The crops grown on the Neilgherries include wheat, barley, and other cereals; peas, beans, potatoes, garlic, onions, mustard, castor-oil, &c. Two and sometimes three crops of potatoes can be taken off the soil in the course of a year, and the cultivation of this root is now growing into much importance, but is not free from the anxieties peculiar to potato-growing elsewhere. Besides potatoes, peas, and turnips, cabbages, cauliflower, beetroot, celery, parsnips, artichokes, and nearly every variety of English vegetable grow well. Of fruits, the grape, plum, Brazil cherry, raspberry, apple, peach, pear, and orange are grown. In some farms and gardens, managed by Europeans, oats, lucerne, and clover have been cultivated successfully. Dairy farms are worked profitably.

13. The commercially important products are coffee, tea, and cinchona. Coffee cultivation was first introduced on these hills about 1844, having already been established in the Wynaud and in Coorg. There are now, exclusive of small native clearings planted with coffee, 459 estates opened (of which 359 are in the Neilgherries proper, 24 in the Ouchterlony valley, and 76 in South-East Wynaud). These estates contain about 25,000 acres of coffee land, of which 23,000 are already planted, and probably about 20,000 are in full bearing. Their present value may be estimated at over ten millions of rupees, and the annual outturn averages about 4,000 tons of coffee, which at present prices would yield about Rupees 30,00,000. They give employment to 10,000 or 12,000 labourers. There are about 150 European planters and estate superintendents in the district. Besides these, many estates are owned by natives of India. The first tea-garden on the plateau was opened in 1851. There are at present 78 estates of 12,000 acres, of which 4,800 are planted, and 3,300 acres in full bearing. The aggregate value of these estates may be estimated at from Rupees 5,00,000 to Rupees 7,50,000, the annual yield being about 510,000 lbs. of tea. An experiment has recently been made in tea-growing on grass lands. It is too early to predict the result, but if it is even moderately successful, the tea-gardens of the Neilgherries may be developed almost indefinitely. About 4,500 hands are employed on the several tea estates. The Madras Government commenced the experimental cultivation of cinchona on the Neilgherries in 1860. There are now 4 plantations, aggregating 900 acres in extent, and said to contain 1,315,444 trees. The total cost to Government up to the end of March 1883 had been Rupees 25,58,503-4-0 and the receipts amounted to Rupees 34,04,859-0-11, showing a surplus of Rupees 8,46,355-12-11. Half of the crop collected, sale of seeds, &c., sold in 1883-84 realized Rupees 80,131-11-3, while the cost of maintenance and other expenses amounted to Rupees 94,181-7-0. This success shows that the undertaking has passed out of the region of experiment; and already private enterprise has followed in the steps of Government, and there are now many private cinchona-gardens planted out.

14. The total area of the district is returned at 957 square miles—678 on the plateau, 39 in the Ouchterlony valley, and 240 square miles in the Wynaud addition. It is not accurately known how much of this is actually under cultivation, as, owing to the different systems upon which land is granted, the Government accounts in one case show the area of estates without reference to the extent cultivated, and in other cases the area cultivated is the only figure recorded. A regular survey of the district has now been completed, and a Revenue Settlement is in

progress, which is all but completed, except as regards the South-East Wynaud, where the operations have not yet commenced. Wages are high. An ordinary unskilled labourer earns about 8 rupees a month; skilled labourers, 12 to 15 rupees; handicraftsmen, 25 to 35 rupees when in full work. At particular seasons on the coffee and tea gardens, wages are very high, but the ordinary rate is 4 or 5 annas a day for pickers. The ordinary seer for grain in the bazaar is about a pound and a half, or half the usual Madras measure.

15. In early traditions of the country, the evidence of the goodoo or manorial fee paid to the Todahs by the immigrant agricultural races who have settled in the country—a goodoo paid, even by Government, for the occupation of the European settlements on the hills—and the researches of the officers early connected with the administration of the district,—all point to the fact that the nomadic race of Todahs were the immemorial and acknowledged owners of the hill plateau, over every part of which they pastured and still pasture, except where occupied, their large herds of buffaloes according to the season. The English rule, however, found the cultivable valleys and hill-sides of the eastern and southern the more genial districts of the hills, long more or less completely occupied by villages of immigrant race, who carried on the rude cultivation of their poor dry grains within their rural limits; much as was the case with hill tribes throughout Southern India, wide areas were occupied, and extensive fallows necessarily the rule. These agricultural villages paid goodoo to the Todahs, and a moderate village tribute for this cultivation to the State, from time to time. Conditions were not much altered, save as respects punctuality of payment and more rigid assessment of extended cultivation, during the first half century of English rule. A ryotwarry settlement has since been gradually extended to the village landholders on the hills, and all land within each village, held exclusively, is entered in the individual puttah or notice of demand, with its assigned assessment, and must be relinquished unless paid for each year, subject to sale in case of retention and final default. In 1863 were introduced what are known as the Waste Land Rules, their object being to facilitate the acquisition of land for plantation purposes and the like. With the introduction of the said Rules, it was intended to do away with the ordinary rules for the occupation of new lands under Ryotwarry settlement, whether by indigenous races or others. The block of land selected by the applicant is, after three months' advertisement, and after demarcation and survey, sold to the highest bidder, whoever he may be. The assessment—8 annas per acre on grass, and 2 rupees on forest—is payable after three years, in the Wynaud, and five years on the plateau, when the land is taken up for the cultivation of special products, such as tea, coffee and cinchona. Such lands are redeemable in fee-simple by a single payment of twenty-five times the assessment, a privilege which does not extend to land occupied under the old rules, and without auction, except such as are used for buildings, factories, gardens and plantations properly so called. The local Government, when sanctioning the introduction of a Revenue Settlement into the district in March 1881, directed the temporary relaxation of the Waste Land Rules, so far as to allow planters and indigenous ryots to take up during the currency of the settlement waste lands adjoining their holdings, without auction or payment of price, but subject to an annual assessment of Rupees 2 per acre in the case of planters and 10 annas an acre in the case of the native tribes. Under this rule, which was rather stretched in its operation, a very considerable area of unappropriated Government waste land has now been taken up. The wide and immemorial pasture grounds of the Todah race—practically the greater portion of the unappropriated area of the plateau and the hill slopes—have naturally remained unassessed with any land tax, although they may probably be said to have been, or at least at present to be, adequately occupied by the cattle, some 25,000 or 30,000 head, now maintained on them. The natural pasture is exceptionally coarse and innutritious, and the climate of the western and northern districts of the range, which are especially pastoral, is so ungenial as to close them partially against herds for several months of the year; and further, the area of unappropriated land has become seriously narrowed. Tippoo Sultan is believed to have asserted a right to pasture the cattle belonging to the Mysore State on the hills; transit duties were levied on the ghee, in which the Todahs traded with the low lands; and a kind of moturpha tax has at times been levied on the cattle of this pastoral tribe, but no settlement or land tax has been extended to these pastures. Since, however, a demand for land for European occupation has sprung up on the hills, these wide pasture lands have practically been declared Government waste, available for sale and appropriation by Government. However, to each mund or Todah hamlet is reserved a 50-acre block of pasture, with a proportion of forest for shade. On this, a rental of 2 annas an acre is payable. This represents a reservation in all of some 7,000 acres, so that to each adult male Todah there is an allowance of over 30 acres. Practically, the Todahs graze their cattle over all waste land, but the reservation has been granted to compensate for the gradual enclosure of private estates. The Todah reserves, however, are intended exclusively for pasture, and the puttahs issued for them contained a note forbidding their alienation by sale or otherwise to other people. In the European settlements, a few building grants, made before 1863, are held on quit-rents redeemable on twenty years' purchase; but more recent grants are subject to the general conditions specified above, and are not allowed to exceed 10 acres in extent. The only other tenure in the district is that of the inams or glebes of village officers, the assessment on which used to be paid direct by the occupants to the village officers as their remuneration. These have been since amalgamated with Government lands, the puttahdar paying the revenue to Government direct, and the village officers receiving in lieu a money payment, out of the village service cess fund recently constituted, which consists of the village service cess at the rate of one anna in the rupee, and of the general fund which is formed by a deduction from the beriz of the amount of land-revenue assessment payable on what were hitherto called inam lands. Transfers of land are frequent and easy. Between natives, they are generally effected by the traditional form of conveyance, and intimated to the settlement officer. But the European practice of conveying by stamped and registered document is becoming popular. The price of land, of course, varies very much according to class—good forest land in the Wynaud and Ouchterlony valley sometimes reaching Rupees 1,000 an acre; but Rupees 20 to Rupees 10 an acre is the average auction price for coffee land. The price of land in the settlement of Ootacamund has of late risen very high, the demand for building sites having become very great.

16. *Forestry.*—The forests of the Neilgherries are of four kinds—(1) the eastern and southern slopes, (2) the northern slopes and Moyaur valley, (3) the South-East Wynaud, (4) the sholahs on the plateau. In the first, are found deciduous forest with teak, Anogeissus, Terminalias, and other trees on the projecting spurs and slopes of southern aspect, while the valleys are filled with fine forest of partly evergreen, partly deciduous growth. In these valleys the chief tree is the vengay (Pterocarpus marsupium), but noticeable among others are Mesua ferrea, Cedrela toona, Chickrassia tabularis and Bischoffia Javanica. The second category contains chiefly deciduous forest with a fair amount of sandalwood, and the third similar forest to that of the Malabar-Wynaud, showing timber of large size, chief among which are teak and blackwood (Dalbergia latifolia). The forest of the sholahs is quite different. These sholahs are patches of thick forest along ravines and water-courses and separated by grass-lands or downs. The forest is low, the trees are rarely reaching 50 to 60 feet in height, and the most important trees are three Eugenias, viz., Eugenia Montana, Eugenia Arnottiana and Eugenia calophyllifolia, two Hollies (Ilex denticulata and Wightiana), Michelia Nilagirica, Ternströmia Japonica, Gordonia obtusa, Daphniphyllum glaucescens, Meliosma pungens and Arnottiana, Mappia fœtida and species of Symplocos, Microtropis, Viburnum and Ligustrum. In all these categories forests are being selected for legal reservation. The sholahs are very slow in growing, and old trees do not easily reproduce, so that when it was found that they were likely to be in danger of destruction for fuel, arrangements were made to plant the quick-growing Australian wattles and gums. Plantations of the blue-gum (Eucalyptus globulus) and the wattles (Acacia melanoxylon and dealbata) have been formed near Ootacamund, Coonoor and Wellington, and the chief of them are "Aramby" and "Bathry" at Ootacamund, "Old Forest" and "Bandy Sholah" at Coonoor, and "Rallia" near Wellington. These trees, and especially the blue-gum, grow very fast and are fit to cut at ten years of age, being then often 100 feet high with a girth of 2–3 feet or even more. The annual increment of blue-gum has been ascertained to be about 12 tons per acre per annum, that of wattle 6 tons. These plantatations are being worked in regular rotation for the supply of fuel on the plateau. The produce of the Wynaud and Moyaur forests consists of teak logs, which are brought for sale to Ootacamund, sandalwood roots and myrabolams. The head-quarters are at Ootacamund and ranges have been formed at Coonoor, Kotagherry, Nedoowuttam, Seegoor, Moodoomullay, and Meloor.

17. *Commerce and Trade.*—The district, notwithstanding the difficulties of construction and repair, is fairly supplied with roads, but much yet remains to be done in this respect before the country is fully opened for the introduction of European capital. There are altogether more than 233 miles of road bridged and open for wheeled traffic, of which 157 are on or leading to the plateau, and nearly 76 in South-East Wynaud. The principal Neilgherry lines are the Coonoor ghaut road, and thence to Ootacamund, 28 miles; Ootacamund to Karkanhully for Mysore, 26; to Goodalore, 32; to Kotagherry, 12; to Avalanchey, 14. The road from Ootacamund to Karkanhully is however only practicable for wheeled traffic with difficulty. There are, besides, some minor roads fit for wheeled traffic; and several other ghauts and plateau roads are maintained for pack-bullocks, but are not practicable by carts. A railway from Kullar, at the foot of the ghaut, to Coonoor is at present under contemplation.

18. There are no special manufactures in the district, except the weaving of a coarse cotton cloth by the Badagahs. Several European industries, for local purposes solely, exist, and there are two breweries. The trade consists in the import and sale of European goods and food-stuffs, and the export of tea, coffee, and cinchona, and some garden produce. The principal fair of the district is held at Ootacamund every Tuesday. At Coonoor a shandy is held on Sundays and Tuesdays, and at Kotagherry on Mondays. The Kadoo festival of the Todahs, at which is performed the annual ceremony for the dead, which consists of dancing and slaughtering buffaloes, is held in different localities. The Badagahs and Kotahs also have annual festivals, which are attended with dancing and music, sacrifices of sheep, buffaloes, &c.

19. *Famine, Flood, &c.*,—No famine is ever known to have occurred within the district. But high prices in the plains affect prices here, and notably in 1877, serious distress was felt among the poorer classes, European as well as native. Flood is unknown on the mountains.

20. *Medical.*—Situated as these hills are at an average elevation of 6,000 feet, equidistant from two seas, sharing two monsoons, and isolated from mountains of similar height, they possess a climate which, for equability of temperature, for mildly invigorating qualities, for great salubrity, and for immunity from the disturbing influences common to the climate of most hill stations, is almost unrivalled within the tropics. The average temperature deduced from the mean of twenty-five months has been fixed at 58° F. The hottest season is in April and May, but its occurrence depends upon the character and period of setting in of the south-west monsoon. The extreme range of temperature, from sunrise to 2 P.M., averages commonly 16° F. throughout the year.

21. *General Administration.*—The Neilgherry Hills formed part of the district of Coimbatore till 1831, when the greater portion was transferred to Malabar. In 1843, they were retransferred to the jurisdiction of the Collector of Coimbatore, of which district they formed a sub-division till 1st August 1868, when they were constituted a separate district, and placed under a Commissioner, who, in addition to his revenue functions as Collector, was invested with the powers of a Civil and Sessions Judge. Under him was an Assistant, who had the powers of a District Magistrate, Judge of Small Causes, and District Moonsif. There were two Joint Magistrates, one at Ootacamund and one at Wellington. The jurisdiction was increased in 1873, by the addition of the "Ouchterlony Valley" section of the South-East Wynaud; and from 31st March 1877, the tracts known as the Numbalagode, Cherangode, and Munnanaud amshoms, which formed part of the talook of Wynaud in Malabar, were also transferred to this district. In February 1882, the administrative machinery of the district was re-organized. The Commissionership was abolished, and the district constituted a Collectorate and placed under a Collector who, in addition to his Revenue and Magisterial functions, has the power of an additional Sessions Judge. Under him are a Head Assistant Collector in charge of the South-East Wynaud and a Deputy Collector in charge of the Treasury. The District Judge of Coimbatore has Civil as well as Sessions jurisdiction over the Neilgherry District and there is a Subordinate Judge at Ootacamund who, besides having Civil jurisdiction in the district, is a Magistrate of the first class and Justice of the Peace. Ootacamund was a "military bazaar" under a Commandant till 1840, when it was made a civil station, and it is now the administrative headquarters. The district contains 5 sub-divisions or nauds, viz., Paranginaud, Todanaud, Merkoonaud, Coondahnaud, and South-East Wynaud. The total revenue from all sources in 1868-69, the year in which the Neilgherry Commission was first established, was Rupees 1,00,630, and the expenditure on civil administration, Rupees 3,29,060; in 1874-75, the revenue has increased to Rupees 2,05,070, and the expenditure to Rupees 4,14,910. The principal sources of revenue in 1883-84 were—land, Rupees 1,05,763; abkarry or excise, Rupees 1,79,576; forests, Rupees 43,781; opium, Rupees 4,616; license-tax, Rupees 6,008; stamps, Rupees 47,086; and post office, Rupees 29,360. Principal items of expenditure—administrative and public departments, Rupees 1,01,950; law and justice, Rupees 65,420; ecclesiastical and medical services, Rupees 75,050; superannuation, &c., allowances, Rupees 30,610; land revenue, Rupees 70,473; forests, Rupees 4,206; post office, Rupees 1,72,470. The number of magisterial courts in 1883-84 was 9, and of civil and revenue courts, 4. The aggregate strength of the police in 1883 was 141 men, maintained at a cost of Rupees 35,616. The number of persons accused of criminal offences was 2,965 and the number convicted 2,313. There are 2 prisons in the district, the jail at Ootacamund and the European prison. There are also 3 subsidiary jails, one at Wellington, one at Coonoor, and one at Goodalore. The average daily number of prisoners during 1883 was 154. Out of a population of 91,034 in 1881, 5,775, or 7·3 per cent. (of whom 1,000 were females) could read and write; and 1,765 were under instruction. Among the hill tribes, education has made but little progress. The only two schools of importance are the Lawrence Asylum, Lovedale, and the Breeks' Memorial school at Ootacamund. The former has been already referred to; the latter, founded in memory of the first Commissioner, is an efficient middle-class school. The Neilgherry Library at Ootacamund and the Lawrence Asylum at Lovedale are the only institutions deserving notice. The former possesses a handsome building, erected in 1859 at a cost of Rupees 38,000; its annual income is Rupees 7,400, and it contains reading and writing rooms and about 10,908 volumes. The Lawrence Asylum, like other institutions of the same name, is intended for children of British soldiers, whether orphans or not. It accommodates at present 390 children (330 boys and 60 girls). The children are housed, fed, clothed, and educated. They are taught trades, and employment is found for most of them on leaving. Telegraph and survey classes, carpenters', tailors', and shoemakers' shops, and a farm are attached to this institution. It is supervised by a Principal and a Committee, and has an income from all sources of about Rupees 1,00,000, derived from the endowments of the Military Male Orphan Asylum of Madras, Government grants, and profits on industries. One English newspaper is published in the district.

NELIAMPUTTIES.

Description.—This is a range of hills chiefly situated within the boundaries of Cochin and lying about 20 miles in a southerly direction from the town of Palghaut. They vary in height from 3,000 feet in the valleys to 5,000 on the higher ranges. The climate is pleasant during a portion of the year, but in June, July, and August the monsoon is heavy and high winds blow. The hills are feverish. The thermometer ranges from 45° to 90°. The annual rainfall averages 150 to 160 inches. With the exception of the high peaks, the whole range is very thickly wooded. At an elevation of 5,000 feet the hills are covered with grass, but from 4,000 to 1,500 feet above sea-level it is all forest, full of valuable timber. The forests also produce cardamoms, ginger, pepper, &c.; and large quantities of wild honey are annually collected by the Kadar, a jungle-tribe inhabiting these hills. These people are not unlike the Coorumbar of the Wynaud. They live on roots and other jungle produce, and also grow a small quantity of rice. Coffee has been grown here since 1860, but at first the want of labour was a great difficulty. Of late years, however, labour has been more abundant, and cultivation has consequently increased considerably. Tea and cinchona have scarcely been tried, but might succeed. At present there are a few European residents and from 800 to 1,000 labourers on all the estates.

NELLORE.

Description.—This is a district on the eastern or Coromandel coast, lying between 13° 25′ and 15° 55′ N. lat., and between 79° 9′ and 80° 14′ E. long. On the east it is washed by the Bay of Bengal; its western boundary is formed by the Eastern Ghauts, which separate it from the districts of Kurnool and Cuddapah; north it is bordered by Kistna district; south by North Arcot and Chingleput. Estimated total area, 8,739 square miles; total population, according to the Census of 1881, 1,220,236 persons. The administrative head-quarters are at Nellore Town.

2. *Physical Geography.*—Nellore district occupies a tract of low land stretching from the base of the Eastern Ghauts to the sea. Its general aspect is forbidding. The coast-line is uniformly constituted by a fringe of blown sand, through which the waves occasionally break and spread a salt sterility over the fields. Farther inland, the country begins to rise. But the soil is not naturally fertile, nor are means of irrigation readily at hand. Scarcely one-half of the total area is cultivated. The rest is either a rocky waste or covered with dense scrub jungle. The finest trees are to be found in the neighbourhood of the village sites. Along the western frontier rises a barren range of mountains, which throws out numerous spurs into the plain. A remarkable natural feature is the island of Shreeharicote, a low ridge of sand which divides the Lake of Poolicat from the main sea. Inhabited chiefly by scattered families of the wild tribe of Yanaudies, most of it has never been brought under cultivation; but Madras city is regularly supplied with fuel from this otherwise unprofitable waste. The chief rivers of Nellore are the Pennair, the Swarnamookhy, and the Goondlacumma, which all rise in the table-land above the Ghauts, and flow east through the district to the sea. The numerous minor streams are little more than mountain torrents, unavailable for irrigation. The Pennair runs through the district for a total course of about 70 miles, passing by the town of Nellore. For nine months of the year its bed, which is rocky among the hills but sandy lower down, is almost dry, with deep pools here and there, into which the fish collect. The season of flood (full or partial) lasts altogether for about 60 days. When the stream is at its highest, the volume of water is 500 yards wide and 30 feet deep, filling the bed from bank to bank. The chief irrigation works on the Pennair are the anicut at Nellore town, from which numerous channels are led off on the south bank, and an anicut which is now being made at Sungam, a place 18 miles west of Nellore, and which will irrigate land north of the river. The floods of the Swarnamookhy also supply a series of irrigation channels. The bordering range of the Eastern Ghauts rises in its highest peak, Penchalacondah, to an elevation of about 3,600 feet above sea level. Detached from this range is the isolated hill or droog of Oodayagherry (3,079 feet), which was till recent times the rock fortress of an independent Mahomedan chieftain. Throughout the district generally, the underlying rocks belong to the metamorphic series, which occasionally crops up in the form of gneiss, schist, and quartz, and is intersected by veins of quartz and volcanic rocks. The Eastern Ghauts, on the other hand, are capped by a series of sedimentary formation, chiefly altered sandstone and slate, known as the "Cuddapah Group." Organic remains of fernlike plants have been found in several places. A band of laterite, varying greatly in width, extends almost continuously along the coast, and is largely quarried for building material. Copper was discovered in the western hills in 1801. The ore was found on assay to yield a large percentage of metal, and European capital was attracted to the spot. But the enterprise has repeatedly proved unsuccessful, and no fresh attempt has been made since 1840. Iron-ore, chiefly in the form of sand, is collected and smelted, according to native methods, in many places. It is worked up into tools, but no steel is manufactured. Saltpetre is made in a few villages, by refining down the nitrous earth to be found on the surface. Wild animals are comparatively rare in Nellore. Tigers are now almost unknown, except when a stray one wanders across the mountains from Cuddapah. Leopards, bears, samber deer, and occasionally bison are still to be found among the western hills. Antelope, spotted deer, and wild hog are generally distributed, while the small game comprise snipe, duck, bustard, and florican. In 1883, the total number of reported deaths from wild beasts was 29; from snake-bite, 99. The total amount paid in rewards for killing wild beasts was 635 rupees.

3. *History.*—At Nellore the earliest Hindoo sovereign, or chieftain, whose name is known is Mookkanty. He is supposed to have ruled at Nellore about the eleventh century, and to have been tributary to the Chola Rajahs, who long held the sovereignty of the southern part of the district. It is possible that the tract was to a certain extent uninhabited till a comparatively recent period, and like the Cuddapah, Bellary, Anantapore, and Kurnool districts, formed part of the so-called desert of Dandaca. Hence the absence of any connected history, or tradition, earlier than the Cholas. Mukkanti Rajah may have flourished in the early part of the eleventh century. But this is mainly conjectural. The name "Mukkanti Maharajah" is well known throughout the Northern Circars, and the construction of the Amravatty tope has been attributed to him. The next chief whose name is known is Siddhy Rajah in the twelfth century. He must have been a tributary of the Cholas, whose power at that time extended far north, and apparently embraced the whole of Calinga and Vengy. At this period the northern parts of the district were under various petty princes of obscure origin of the Yadava or shepherd caste. The Cholas were subverted by the Warangal Ganapaties, who held the north of the district till the Reddy chiefs came into power (A.D. 1328 to 1427), with their capital at Condaveed; and after them the country was under the Mussalmans and local chiefs till Krishnadeva Roya of Vijianugger subdued the whole about the year A.D. 1513. Meanwhile it would seem that the Gajapaties of Orissa held at least part of the country for some period, though it is difficult to determine their exact date. After the subversion of the Vijianugger kingdom in A.D. 1565, the history of the district is more clear. The oldest native family now existing in Nellore is that of the Rajah of Vencatagherry, who professes to trace back an unbroken descent for twenty-seven generations. The traditions of the family recount numerous wars with the Mahomedans, who probably first invaded the country under Kafoor in 1307, but did not permanently conquer it until the time of the Kootbshahy dynasty at Golcondah. The first fact in the modern annals of Nellore is the settlement of the English at Armegam in 1628. Expelled by the Dutch from the Spice Islands by the Massacre of Amboyna in 1623, the East India Company was induced to turn its attention to the Coromandel coast. The earliest factory was planted at Masulipatam in 1625; but three years later, Mr. Francis Day, the future founder of Madras, being probably still pressed by Dutch rivalry, migrated southward to the little village of Doogarazpatam. Here he built a fort, and called its name after Armoogam Moodelliar, the headman of the village, who had shown him hospitality. Eleven years afterwards, in 1639, Armegam in its turn gave way to Fort St. George or Madras, and its historic name is now preserved only by an insignificant lighthouse. Nellore town first emerges into history during the Carnatic wars of the 18th century, when the English and French were contesting the supremacy of the East. It formed part of the dominions of the Nawab of the Carnatic, and possessed considerable strategic importance as commanding the northern high road and the passage of the Pennair. In 1753, it was the appanage of Najeeb-oollah, a brother of the Nawab Mahomed Ally, whom English support had placed upon the throne. In that year, a military adventurer, named Mahomed Komal, drove Najeeb-oollah out of Nellore, and threatened to sack the treasures of the Tripatty Pagoda, which had been pledged to the English. Mahomed Komal repulsed the first detachment that was sent against him from Madras, but shortly afterwards he was defeated and taken prisoner, though with the loss of the English officer in command. Nellore was the scene of a more serious affair in 1757, when Najeeb-oollah himself rebelled against the authority of his brother, the Nawab. An army of 10,000 men was marched against him, including a contingent under the command of Colonel Forde, which consisted of 100 Europeans, 56 Kaffirs, 300 Sepoys, 1 18-pounder, 3 6-pounders, and a howitzer. Najeeb-oollah left the town of Nellore to be defended by a garrison of 3,000 men, assisted by 20 Frenchmen from Masulipatam. After a few days' bombardment from the artillery, a breach was made in the mud wall, which Colonel Forde thought practicable; but the storming party, composed of the entire English contingent, was repulsed with loss, and Colonel Forde was shortly afterwards recalled to Madras. Najeeb-oollah remained in arms through the following year, and played off the Mahrattas and Basaulat Jung against the English. At last, in the beginning of 1759, when he heard that the French besieging army under Lally had been compelled to withdraw from before Madras, he sent in his submission, and was reappointed Governor of the district, at an annual tribute of 30,000 pagodas. He sealed this compact by putting to death his French allies. During the wars with Hyder Ally, Nellore to a great extent escaped the general devastation. In 1790, on the breaking out of the war with Tippoo, the English resolved to undertake the direct

management of the revenues of the Carnatic, which had long been pledged to them by the Nawab. Mr. Dighton was appointed the first Collector of Nellore, and Mr. Erskine of Ongole. At the conclusion of peace with Tippoo in 1792, the administration was restored to the Nawab; but it was permanently assumed by the British in 1801. Since that date, the only difficulties that have been encountered have arisen from the intricacies of the native revenue system, and from periodical visitations of drought.

4. *Archæology.*—This district is singularly destitute of archæological remains. The hill-fort of Oodayagherry is one of the few objects of interest. The position of this is strong and commanding. The fort consisted once of thirteen separate strongholds, eight on the hill and five below. Inside the fort walls are the remains of palaces, temples, and tombs. By far the greater part of the hill is inaccessible owing to vertical precipices, and the path up to the upper forts shows great engineering skill. This fort was built long before the Mussalman rule. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—In 1852, the population of the district was returned at 935,690 persons, on an area of 7,930 square miles. In 1862, the number was 999,254, on an area of 8,752 square miles, showing an average density of 134 persons per square mile. The regular Census of 1871 was the first conducted on accurate principles, and it was followed by another regular Census in 1881. The Census of 1871 revealed a total of 1,376,811 inhabitants, but it was followed by the Famine of 1877, and in 1881 the population was 1,220,236 dwelling in 1,683 villages or towns and in 233,059 houses. The total area of the district was taken at 8,739 square miles. These figures yield the following averages:—Persons per square mile, 140; persons per village, 722; persons per house, 5·2; villages per square mile, 0·19; houses per square mile, 29. Classified according to sex, there were 615,332 males and 604,904 females. Classified according to age, there were, under 14—224,675 boys and 217,536 girls; total children, 442,311, or 36 per cent. of the population. The religious division of the people is as follows:—Hindoos, 1,138,031; Mahomedans, 61,344; Christians, 20,794; "others," 67. The Christians comprise 33 Europeans and 320 Eurasians. Four Christian missions are established in the district—(1) the Roman Catholic Mission; (2) the American Baptist Mission, which dates from 1840, and has 3 stations; (3) the school at Nellore town for both boys and girls, made over to the Free Church of Scotland Mission in 1848; and (4) the Hermansburg Lutheran Mission, founded in 1865, which now possesses 8 stations, with 11 missionaries from Germany. Among the wild or aboriginal tribes of Nellore, the Yanaudies are the most numerous. They are to be found in all parts of the district, except in the extreme north, but the little colony in the island of Shreeharicote has attracted special interest. In 1835, when this island first came into the possession of Government, the Yanaudies were found in the most degraded state of savagery. A Government agency was established, where each individual was registered, depôts were opened for the sale of their jungle produce, in exchange for which they received a regular allowance of food and clothing, and a schoolmaster was sent to them in 1857. The result of these measures of active civilisation was fairly successful; but the Yanaudies still live in the jungles, and refuse to cultivate the soil or rear cattle. They are a Teloogoo-speaking race, who have adopted Hindoo practices to a considerable extent; but they worship their own indigenous demons, and bury their dead. Other wandering tribes are the Yerkalar, a race of Tamul origin, who live by selling jungle produce and carrying salt and grain on their bullocks and asses; the Soogalies or Lumbaudies, who speak a Mahratta dialect, and also support themselves as carriers; and the Chentsoos and the Dommaras.

6. *Agriculture.*—As has been already stated, only about one-half of the total area of the district is under cultivation. The soil in many parts is poor and rocky; the annual rainfall is scanty, and liable to periodical failure; the means of irrigation are insufficient. In the south and east, and especially in the neighbourhood of Nellore town, rice forms the staple crop, being grown wherever artificial irrigation is available; but dry crops predominate along the western border and in the north. The harvest seasons depend upon the two monsoons, both of which contribute to the rainfall of the district, the south-west monsoon being most felt in the north, and the north-east monsoon in the south. There are therefore two harvests in the year—the poonausa or moodroo, sown under the early monsoon from June to September, and reaped between December and March; and the peiroo, sown under the late monsoon from October to January, and reaped between February and April. The moodroo comprises the greater variety of crops, but the peiroo covers the larger area. The following statistics for the fusly year 1292 (1881-82) exhibit the agricultural condition of the district from the fiscal point of view. Excluding the zemindarry estates, concerning which no statistics are available, the area of the Government villages amounted to 4,628 square miles. Of this, 3,159 square miles were assessed for revenue leaving 1,330 square miles of cultivable and 1,655 square miles of uncultivable waste. The area actually taken up for cultivation, as opposed to the occupied area, amounted to 1,052,562 acres, of which 223,540 acres were irrigated from Government works. The total assessment, levied on the occupied area, was Rupees 18,72,652, being at the average rate of Rupees 2-0-5 per cultivated acre. The area under crops (including twice counted lands from which two crops are taken in the year) was 1,051,215 acres, of which 913,959 acres, or 87 per cent., were occupied by food grains. The area under each of the principal crops is thus given in detail:—Rice, 240,437 acres; cholam or jonna, 298,134; raggy, 33,401; varagoo or alloo, 78,382; cumboo or sajja, 70,747; variga, 122,068; oil-seeds, 56,312; indigo, 45,309; tobacco, 3,252; chillies, 4,806; cheyroot and other dyes, 43 acres. The average prices of produce per maund of 80 lb. were—rice, Rupees 3; inferior food grains, Rupee 1; indigo, Rupees 149; cotton, Rupees 15. The daily rates of wages were—for skilled labour, Annas 12 at Ongole and Canigherry, Annas 6 in most places and Annas 4 in some; for unskilled labour, Annas 6 at Atmacore, Annas 2 Pice 6 in most places and Anna 1 Pice 6 in some. The irrigation of Nellore district is not comprehended under a single system. The chief work is the anicut across the Pennair river near Nellore town, constructed in 1854, to provide irrigation for the lands lying on the south bank. This anicut was originally 527 yards in length, extending across one-third of the normal width of the river-bed. But during the flood of 1874, the water rose more than 18 feet above the crest; and an extension to the length of 677 yards was afterwards made. In 1882, the total amount of capital expended on this undertaking had been Rupees 16,65,159; the gross income in that year was Rupees 14,58,121, which, after deducting cost of repairs, &c., and interest on capital at the rate of 5 per cent., left a net profit of Rupees 2,32,233 or 14 per cent. on the outlay. Another anicut is now being constructed higher up on the same river which will provide irrigation for lands north of the river. The other Government irrigation works comprise 665 tanks, 84 river channels, 25 spring-channels, 83 anicuts, and 671 wells. In addition, irrigation is everywhere conducted on private account, chiefly from wells, tanks, and spring channels. Nellore is famous for its breed of cattle, which are largely exported to neighbouring districts. Historically, it is said that the farmers devoted themselves to cattle-breeding, in despair of obtaining remunerative returns from agriculture. The Nellore bullocks are found in greatest perfection in the northern talooks bordering on Kistna district. The value of a good bull ranges from Rupees 70 to Rupees 200. The interest of well-to-do farmers in cattle-breeding was greatly stimulated by an annual cattle show held before the famine of 1876-77. This show was founded in 1859, and its conspicuous success is to be attributed to the personal attention of Mr. Dykes, who was for many years Collector of the district. In 1871, prizes were offered for cattle, ponies, sheep, agricultural products, and agricultural implements, to the aggregate value of Rupees 2,140. The first prize for full-grown bulls was Rupees 75. In 1883-84, the total number of cattle in the district was returned at 296,356. They suffered severely from the recent drought, which in the first year of its incidence is said to have caused no fewer than 60,000 deaths. Sheep, chiefly found in the barren talooks in the west, numbered 375,423 in 1883-84.

7. *Forestry.*—The chief range of forest country in this district lies along the Veligonda Hills, on the eastern slopes of the range in the talooks of Raupore, Atmacore, Oodayagherry, and Canigherry, in blocks alternating with zemindarry lands chiefly belonging to the Calastry and Vencatagherry estates. In these forests the red sanders tree (Pterocarpus santalinus) occurs, as well as the yepi (Hardwickia binata), yegy (Pterocarpus marsupium) and teak, with other valuable kinds. They have now been proposed for constitution as reserved forests. The isolated hill ranges of Oodayagherry, Canigherry and Cheemacoorty have also been so proposed and settlement is in progress. The next in importance of the forests of the Nellore district is that of Shreeharicote on the island of the Poolicat Lake and the belt of land between the lake and the sea. This forest has long been worked for the supply of the Madras market in fuel. The chief trees are

the neride (Eugenia Jambolana), solagoo (Pterospermum suberifolium), and moosty (Strychnos Nux-vomica). Soapnuts are also found and tamarind trees in great number. The chief product is fuel, and for this the forest block for the year is cut, the trees being pollarded only and not cut to the ground. For the purposes of working, eight blocks are formed and these are cut in rotation. Minor produce also is largely exported, such as tamarind, strychnine seeds, orchil (Roccella Montaignei) and the dye plants, chay (Odenlandia umbellata) and sooraty chekka (Ventilago Maderaspatana). Canes, the produce of Calamus Roxburghii, are also sent to Madras for sale. In the plain talooks of Goodoor, Nellore, Cauvaly Cundoocore and Ongole the forests consist of areas of scrub, some of which, however, and especially those reserved near Nellore and Ramaputnam, are in good growth and valuable for fuel and poles and the small wood which is the most necessary for native use. Out of these areas reserves are being selected, but all are under management under the forest rules. The chief fuel trees are the chikrainy (Albizzia amara) and pala (Mimusops Indica), but the number of kinds is large and there are many others of value. Very important also in the Nellore district are the casuarina plantations, the chief of which are at Doogarazpatam, Cottapatam, Tammenapatam, Ootoocore, Toommalapenta, Ramaputnam and Canoopurty. These plantations cover about 2,000 acres of land on the sand dunes of the sea-coast and are now coming into working. Recent investigations go to show that these plantations make annually an increment of about 4½ tons per acre up to eight years of age, and that about 5,000 tons may yearly be made available. Arrangements for their survey and a proper working scheme are in progress. A number of palmyra plantations and one of cocoanut (Cocos nucifera) have been made, while many topes have been planted about the district. In some the cashewnut (Anacardium occidentale) is grown and the nuts exported for sale. The head-quarters of the division are at Nellore and range head-quarters at Shreeharicote, Nellore, Raupore, Oodayagherry, Canigherry, Ongole and Ramaputnam. The produce of the Shreeharicote forests and the plantations is taken for sale to a central depôt in Madras.

8. *Commerce and Trade.*—In former times, Nellore was celebrated for its textile fabrics. A speciality was the weaving of "blue salampores," which found a ready market among the negroes in the West Indies. No cotton goods are now exported, but spinning and weaving for local consumption is still carried on in many villages. The total number of looms in 1882-83 was returned at 8,447; their estimated consumption was 358,756 lb. of thread; the total value of their produce was Rupees 2,65,634. At the village of Covoor, near Nellore town, fine shirtings, pocket handkerchiefs, and muslins suitable for ladies' dresses, can still be obtained to order. Other industries are the weaving of hempen cloth, dyeing, the making of vessels of brass, copper, and bell-metal; the carving of images, pillars, and cart-wheels from stone; mat-making and boat-building. The trade of the district has considerably decreased since the time before the opening of the railway, when it formed the high-road between the interior and the sea-coast. In those days the cotton of Cuddapah and Kurnool was brought down on pack-bullocks to be exchanged for the salt of Nellore. The sea-borne trade is now almost entirely carried on in coasting craft, though formerly large ships used to carry salt to Bengal. In 1883-84, the total value of the exports amounted to Rupees 2,48,972—the chief items being grain, bones and seeds; the imports were valued at Rupees 8,660,—chiefly rice, black gram and tobacco. The two principal ports are Cottapatam and Yeetamookkala, both in the extreme north of the district. The indigo, which is manufactured almost entirely by natives, in accordance with what is known as the Bengal system, is sent by land to Madras. In recent years, there has been a considerable decrease in the manufacture of salt, owing to the circumstance that the foreign demand is now supplied from other quarters. In 1882-83, the total quantity made was 541,174 maunds, or 19,880 tons, valued at Rupees 10,82,348; of which none was exported by sea, but 234,864 maunds were despatched inland. As recently as 1860-61, the quantity exported by sea was 190,000 maunds, or 7,000 tons, and the quantity sent inland was 518,000 maunds, or 18,000 tons. There is no railway in the district, but one has been commenced which is to run from Tripatty on the Madras Railway to Nellore. The chief means of communication is the Great Northern Trunk Road, which runs along the coast to the Bengal frontier. At Nellore town it sends out two branches, to Cuddapah and Budwail, and at Singaroyacondah a branch to Cumbum, and at Ongole, the route to Hyderabad branches off. A new road runs from Nellore town to the coast at Kistnapatam, which is of great utility for the salt traffic. In 1882-83, the total length of first and second class roads in the district was 1,017 miles, maintained at a cost of Rupees 1,43,954. The East Coast or Buckingham Canal, taken through Lake Poolicat, has long afforded inland navigation between the frontier of the district and Madras. This canal has recently been connected with the canal system at the mouth of the Kistna.

9. *Famine, Flood, &c.*—Nellore, with a scanty rainfall and inadequate means of irrigation, has always been exposed to the calamities of nature. Drought is the most common and also the most terrible disaster, but floods of the Pennair river and storms on the seaboard also contribute to depress agriculture. The years of actual famine since the annexation in 1801, were 1806-7, 1829-30, 1832-33, 1836-37, and 1876-77. In 1804, 1852, 1874, and 1882 sudden inundations of the Pennair caused wide-spread damage, and destructive storms are recorded in 1820 and 1857. The recent famine of 1876-77 was felt in Nellore with special severity, as the district had scarcely recovered from the floods of 1874. There was an almost entire failure of crops except in irrigated lands. The only tracts which realized any harvest were the northern talooks of Ongole, the zemindarry of Vencatagherry, and a few favoured villages along the sea-coast and in the south. By March 1877, no less than 37 per cent. of the cultivated land was thrown out of cultivation. At the same date, the area under indigo had decreased from 57,000 to 20,000 acres, and 60,000 cattle had perished. In August of that year, 191,502 persons were in receipt of relief, or 13·92 per cent. of the total population. The distress was aggravated by the absence of all railway communication.

10. *Medical.*—The climate of Nellore district is generally regarded as dry and salubrious, being subject to no sudden changes of temperature. The most trying season for Europeans is the period from April to June, when a westerly wind blows hot and sand-laden from the inland plateau. The monthly temperature varies from about 74° F. in December to 90° in May. The district receives its rainfall from both the north-east and the south-west monsoons, the former predominating in the south, and the latter in the north. The average annual rainfall is returned at 33·47 inches, of which 21·13 inches are brought by the north-east or early, and 12·34 inches by the south-west or late, monsoon. The rainy months are June and July, October, November, and December. In the famine year of 1876-77, both monsoons failed; and the total rainfall amounted to only 12·32 inches, being less than the average by 21·15 inches. The principal diseases are intermittent fever of a mild type, chronic rheumatism, leprosy, elephantiasis or "Cochin-leg," the curious affection of the foot known as Morbus entophyticus pedis, cancer of the face, and guinea-worm. Diarrhœa and dysentery are common, and both cholera and small-pox often make their appearance in an epidemic form. The dispensary at Nellore town was attended in 1883-84 by 450 in-door and 6,491 out-door patients.

11. *General Administration.*—In 1883-84, the total net revenue of Nellore district amounted to Rupees 40,12,940, derived from the following principal sources:—Land, Rupees 25,04,643; salt, Rupees 12,08,840; excise, Rupees 1,30,359; license tax, Rupees 17,727; stamps, Rupees 1,51,367; sea customs, Rupees 4. The total expenditure in the same year was Rupees 5,42,611 under the following chief heads:—Land revenue, Rupees 1,87,747; justice, Rupees 67,767; police, Rupees 1,38,120; provincial, Rupees, 32,497; salt, Rupees 1,16,478. The district was first ceded to the British in 1801; and for the ten years ending 1810, the gross revenue averaged Rupees 18,15,720. The land revenue assessment only has risen from Rupees 15,87,990 to Rupees 25,04,643 within the same period. In 1883-84, the police force numbered 1,176 officers and men, maintained at a total cost of Rupees 1,38,120. These figures show 1 policeman to every 7 square miles and every 1,037 of the population, the cost being Rupees 15-5-0 per square mile, and Anna 1 Pice 6 per head of population. The Nellore jail cost in 1883-84 Rupees 4,356. The educational statistics for 1870-71 show a total of 246 schools, attended by 5,178 pupils. By 1883-84, the number of schools had increased to 440, and the number of pupils to 11,000, being one school to every 20 square miles, and 9 pupils to every thousand of the population. The chief educational institutions are the Hindoo Anglo-Vernacular High School, assisted by a grant-in-aid, with 135 pupils in 1881-82, of whom 7 passed the matriculation examination of the Madras University; and the school under the management of the Free Church Mission, also assisted by a grant-in-aid, which matriculated 9 students in the same year. The language spoken in Nellore is Teloogoo, and local tradition claims for the district that it is the head-quarters of

Teloogoo literature. A list is enumerated of 33 Nellore poets, including some who are still alive. The petty chieftains, and especially the Rajah of Vencatagherry, have always prided themselves upon their patronage of letters, and some of them possess old libraries. The most famous Nellore authors are Ticcana Somayajooloo, who translated the Mahabharat from Sanscrit into Teloogoo, and is said to have flourished in the twelfth century; Molla, a poetess contemporary with the preceding, who translated the Ramayana; and Allasany Peddanna, the poet-laureate at the court of Rajah Krishna Devaroyaloo (1509-30), whose reign is regarded as the Augustan era of Teloogoo poetry. There is one printing-press in the district, at which the District Gazette is published weekly in English and Teloogoo. A reading-room and library was established at Nellore town in 1863. The only municipalities in the district are Nellore town, with a population of 27,505 persons, and Ongole with a population of 9,200. In 1882-83, the total municipal income was, Nellore Rupees 36,112, of which Rupees 22,537 was derived from taxation; incidence of taxation, Annas 12 Pice 3 per head. In Ongole the income was Rupees 11,675, the part of it derived from taxation Rupees 7,030, and the incidence of taxation Annas 11 Pice 7 per head.

NIDADVOLE.

[For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I].

NOOZVEED.

[For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I.]

NULLAMULLAYS.

Description.—This is a mountain-range in the district of Kurnool, lying between 14° 53′ and 16° 18′ N. lat., and between 78° 43′ and 79° 36′ E. long. It extends from the Kistna river to the southern frontier of theKurnool district. Its continuation southward in the Cuddapah district is known as the Lunkamala range. The average height of the Nullamullays is between 1,500 and 2,000 feet above sea-level. The greatest elevation is attained by a detached peak called Beirenicondah, 3,133 feet high, lying eastward of the main range. The highest point in the main range is the Goondlabrahmeshwar hill, 3,049 feet. The eastern slopes of the range rise for the most part almost abruptly from the open country; but along the western base of the hills runs a "terai," or zone of jungle, from five to ten miles broad. The average breadth of the range including the terai is about thirty miles.

2. *Geology.*—The Geological Department have named one of the four sub-divisions of the large Cuddapah system of rocks, over 20,000 feet in thickness, "the Nullamullay group"; and this group consists of the Cumbum slates superimposed upon the Beirenicondah quartzites. The slates, so called, are not sufficiently regular in cleavage or firm in texture to be of any economic value. The slatey formation is characteristic of most of the surface of these hills. Under the term quartzite are included various kinds of altered detrital rock. The railway cuttings have disclosed a fine hard serviceable sandstone in the main ridge. Under former Governments lead and diamond mines were worked near the western entrance of the Nundicanama pass. Recent experiments with the lead ore have shown that it contains a remarkably high percentage of silver. "Wootz" or Indian steel is manufactured at Roodravaram and other villages near the western base of the southern portion of the range, from ore quarried out of the main ridge. Flint weapons have been found east of the range: probably of no great antiquity, though of very rude form.

3. *Fauna.*—Game on the Nullamullays is abundant and varied. Tigers are abundant; they have a bad reputation, owing to the excesses of a few man-eaters. In former days these sometimes put a stop to postal communication for a week or ten days. Bears and panthers (Felis pardus) are less numerous than tigers. The cheetah (Felis jubata) has never been seen. Samber, chital, muntjack, or rib-faced deer, the hill-antelope, the hog-deer, the gazelle (Gazella Benettii) are numerous; the nilghye or blue bull is scarce. Wild hogs, pea-fowl, the spangled jungle-fowl, spangled and common red-spur fowl, painted and common grey partridge (Francolin), three or four kinds of brown and grey quail, the imperial and green pigeon, nearly complete the list of game. Two or three kinds of wild cats, porcupines, Malabar squirrels are found in these hills, but not the wild dog.

4. *Inhabitants.*—The only inhabitants of these hills are an aboriginal race called the Chentsoos, in number about two thousand, and a handful of Yanaudies—about fifty persons. The Chentsoos are savages in the hunting stage. The men wear nothing but a narrow strip of cotton cloth round their loins; the women are clothed like Hindoos but more scantily. A Chentsoo man, who has not left his primitive habits, carries always an axe slung at his girdle, and a bamboo bow and sheaf of steel-tipped arrows in his hand. But within the last few years a considerable number of this tribe have been taken into the service of Government as ghaut-policemen and forest-watchmen. They are an inoffensive tribe of savages, easily managed by judicious treatment; but also easily roused to violence, and traditionally addicted to petty theft. They live in small hamlets (goodems) scattered along the bases and lower spars of the hills. These goodems are collections of huts of primitive but neat construction; made of a thatched framework of bamboos crushed flat, fastened with withes; sometimes dome-shaped, sometimes resembling a waggon-tilt. The food of the Chentsoos is mainly composed of roots and berries, tamarinds (pulp and stones crushed into a mass and mixed with wood-ashes), milk, &c.; but they also eat grain, which they obtain either honestly from the villagers for whom they gather forest produce, or by theft of standing crop, or in payment of services rendered to Government. It is hoped that under the Forest Department the Chentsoos will gradually become dealers in minor forest products. The principal of these are myrabolams, gall-nuts, marking-nuts, tamarinds, and honey. At the foot of the Nullamullays are found a few standing camps or "tandas" of the nomads variously known as Lumbaudies, Brinjarries and Soogalies. These people combine the trade of graziers and cattle-dealers with the occasional practice of cattle-lifting and dacoity in concert with the bands of so-called Rohillas whose annual raid from the country north of the Kistna is an old-established institution.

5. *Forests.*—The area covered by the mountains is about five or six thousand square miles, and the whole of this is covered with forest. The finest timber is found in the block situated between the carriage roads. The tract south of the southern road is next in value. As compared with the wood yielded by the southern hill-ranges of the peninsula, the general characteristic of Nullamullay timber is density and hardness of texture; owing mainly to the lighter rainfall, which probably averages between 40 and 45 inches. Yet forms of vegetation characteristic of regions bountifully fed with moisture are found here to a considerable extent, and in that respect the hills are said to bear a strong resemblance to the Siwalik range. The forest reserve recently constituted in the Nullamullays is probably destined to be one of the most valuable forest properties in India; containing a fair supply of large-sized mature timber and extraordinary resources in bamboo. The principal timber-tree is the nellamadoo (Terminalia tomentosa), whose wood is used for building. Five specimens of Terminalia bellerica stud the hill-sides: these trees are allowed to attain their full size, because the natives consider the wood unlucky. Yepi (Hardwickia binata), Siriman (Anogeissus latifolius), yegy (Pterocarpus marsupium), an ebony of commerce (Diospyros melanoxylon), two naucleas, Schleichera trijuga, Gmelina arborea, all fine timber-trees abound in these forests. Teak (Tectona grandis) is found in abundance, but, owing to wasteful felling in former years, few well-grown specimens exist; this tree, as also the wild mango (Mangifera Indica) the ber and bael (Zizyphus Jujuba, Ægle marmelos), Terminalia chebula, the tamarind and other fruit-trees are protected. Under the system initiated in 1882, the revenue derived from these forests doubled itself at once, rising to sixty thousand rupees per annum.

6. *Roads.*—Two roads practicable for wheeled traffic across the range. The northern road is an old military work known as the Muntraulacanama or Dornal pass (not to be confounded with the Dornal pass across the Lunkam-

alas in Cuddapah district), which connects the talooks of Nundicotcore and Markapore. After lying for many years neglected and impassable, it was opened again in 1883. The southern road is called the Nundicanama pass. It is a later work. It has for many years been the main means of communication between Kurnool district generally, viâ Nundiaul, and Cumbum talook and the seaboard of the Nellore and Kistna districts. The Bellary-Kistna State Railway, now in course of construction, runs approximately parallel to the Nundicanama pass road and intersects it near the crest of the pass. This railway will be taken through the main ridge by a tunnel, 600 yards long, which will be approached on the west by a viaduct that will be the highest as yet built in India. The ghaut portion of the Nundicanama pass is about 18 miles long. The road is good and well-engineered. Since the construction of the railway has begun, several staff bungalows have been built on or near the road and temporary bazaars established. These have robbed the transit of the pass of some of its traditional terrors and of all its inconveniences except one, viz., scarcity of water in the dry season. Owing to the fissured character of the rock, neither new wells nor numerous masonry dams across the beds of streams have as yet done much to improve the scanty water-supply. Besides these two carriage roads, namely, the Muntraulacanama and the Nundicanama, and the railroad, there are two or three bridle-paths. Of these the one most used is the Veloogode Canama, 32 miles long, which runs across the hills between the two carriage roads and approximately parallel to them.

7. *Temples.*—Three Hindoo temples of great renown are situated in the Nullamullays, viz., (1) Srisheilam (the Purwuttum of early authorities) on the Kistna; (2) Mahnundy, built around a thermal spring (temperature about 89° F.), a few miles north of the western end of the Nundicanama; and (3) Ahobalam, picturesquely situated near the southern frontier of the Kurnool district.

8. *Medical.*—As has been already remarked, want of water is seriously felt in the Nundicanama pass, through which both the main carriage road and the railway run. To a less degree, the want is general. The deficiency of water, the ruggedness of the ground, and the unhealthiness of the climate during the cool and rainy seasons account for the desolation of this beautiful mountain range.

NUNDIDROOG.

Description.—This is a fortified hill in Colaur district, Mysore, 31 miles north of Bangalore and 94 miles north-east of Seringapatam; height above sea-level 4,810 feet; lat. 13° 22′ 17″ N., long. 77° 43′ 38″ E. The name means "hill-fort of Nandy," that is of Shiva's sacred bull. The summit forms an extensive plateau, in the centre of which is a tank fed by perennial springs. The forest surrounding the mountain, covering an area of seven square miles, and producing large timber trees, has been reserved by Government. In the immediate neighbourhood are the sources of many large rivers. The temperature averages 10° lower than on the plain below. The droog faces east and west, and is connected by a low ridge with an adjoining hill, a few feet lower than itself, known as "Baynes' hill." The chief approach is by a bridle-path from the bottom of the saddle on the south up the western face. There are also two steep foot-paths cut in the rock. The fort is built on a huge block of gneiss, running up perpendicularly to a height of 1,500 feet. It is protected by a double line of ramparts. The earliest fortifications were erected by the Chicballabha chiefs, but the extensive works whose ruins now crown the summit were constructed by Hyder and Tippoo. There are only a few houses on the droog. The principal one is a very fine building originally built by Sir Mark Cubbon, in 1834, when Resident; it is now a hotel. There is also a large deserted Hindoo temple. Among the notabilities of the droog are pointed out two places, from which in Hyder's and Tippoo's times prisoners tied in sacks were thrown down a precipice of 600 feet. There is no village or other permanent native residence on the hill. The climate is very pleasant, the thermometer usually ranging from 64° to 77°. An attempt has been made to plant avenues of the wild "naga," both at the foot of the hill and on the summit, but the plants are now left to themselves. The flora are not peculiar in any way. Cheetahs are said to be met with occasionally. Good snipe, teal, and duck shooting can be had in the neighbourhood. During the war with Tippoo in 1791, Nundidroog was stormed by the English. The hill forts to the north-east of Bangalore having interrupted the communication with the Nizam's army, it was decided to reduce them, and accordingly, in August, Nundidroog was invested. At first the droog was battered from an adjoining rock, but this proving ineffectual, cannon were moved up the lower slope with extreme difficulty in the face of a formidable fire from the upper walls. After a bombardment of 21 days, two breaches were reported practicable. The storming party was headed by General Medows in person, and the assault was delivered by clear moonlight on the morning of the 19th October. An entrance into the inner fort was effected after a sharp struggle, in which 30 soldiers were killed and wounded on the British side, chiefly struck by stones rolled down from above. The garrison, numbering 600, were mostly killed, wounded, or taken prisoners. The entire British loss during the siege was 130 men. This fortress, when formerly besieged by Hyder, was not surrendered by the Mahrattas until after a blockade of three years.

OOTACAMUND.

Description.—Ootacamund, the chief town of the Neilgherry district, the principal sanitarium of India, the summer head-quarters of the Madras Government, and the head-quarter station of the Madras Army, occupies the western slope of the Dodabetta mountain range. The town proper lies within the basin formed by two spurs of the Dodabetta mountain, the highest point of the southern being Elk Hill, and that of the northern the Club Hill. Owing to its peculiar natural features, Ootacamund is much exposed to the westerly winds, but is well protected upon the north and east. The bottom of the Ootacamund basin has been converted into an artificial lake some two miles in length and one-third of a mile in width, by throwing a dam across the main stream at a narrow pass where it issues from the central valley. This lake is divided into two by means of a causeway and bridge known as the "Willow Bund," from the Indian willows which line its banks. The bund is the means of communication between the north-west and south-west portions of the town. The western lake is sinuous in form. Upon the hills which surround it, more or less concealed by woods of eucalyptus, acacia, cypress, and pine, stand some of the best private residences in the town. On a foreland of its southern bank stands the new Church of St. Thomas, a gothic building; and opposite to this on the north bank, though at a greater distance from the lake, the Roman Catholic Church dedicated to the Blessed Virgin. The upper lake is an oval piece of water, which is at present much contaminated by the drainage of the native town or bazaar which lies on its northern bank. Round the margin of the whole lake runs a wide carriage-drive. The marsh at the head or eastern extremity of the lake has lately been reclaimed and levelled, and now forms a park, known as the Hobart Park, and used for purposes of public recreation. The area, including the lands lying on the northern and southern margins of the lake as far as the Willow Bund, is about thirty acres. Opposite to this, at the eastern extremity of the native bazaar, stands the Hobart School for native girls. To the east of this is the public market. Beyond the market is the agraharam, or Brahmins' village. On the slope of the hill behind the market are the Police lines and station; and above these ranges of buildings St. Bartholomew's Hospital, behind which, on the top of the ridge, are the jails for Europeans and Natives. At a short distance to the east, on the same spur, is the Public Library, and opposite to it the Post office; a little further on are the Breeks' Memorial School and the public offices of the district. Nearer to the hill stands the Church of St. Stephen, the old station church; and opposite its gates the church and school of the Church of England Native Christians. The sides of the hill to the east and west of St. Stephen's are thickly studded with houses and cottages, including westward the Club House and the principal hotels, and eastward the Assembly Rooms. Looking to the east from St. Stephen's, but at a much lower elevation, on the western extremity of a minor spur of Dodabetta, stands "Stonehouse," which contains the Council Chamber and the offices of the Madras Secretariat. In the hollows and on the spurs of Dodabetta to the north and south of Stonehouse are many residences. The lands on these slopes are generally very fertile and well watered, and for this reason a considerable and yearly extending area is cultivated as garden land. In a steep ravine

about half a mile to the north of Stonehouse are the Public Gardens and the Todah 'mund' from which Ootacamund takes its name. Above the Public Gardens, stretching across the Dodabetta saddle, is the large Government Cinchona Plantation. On the northern shoulder of the ravine, adjoining the Public Gardens, lies Norwood, the hill residence of the Governor backed by a fine wood of eucalyptus on the side of the Snowdon mountain. From the foot of Stonehouse towards the south runs the highway to Coonoor, disappearing in the deep cutting which separates Elk Hill from the Dodabetta range. This cutting is bridged by the aqueduct of the south water-supply channel. This is a simple description of the main valley, but the limits of the station lie far beyond it and include two other important valleys; to the south and parallel with it Lovedale, with its picturesque lake, above which stand the extensive storied buildings of the Lawrence Asylums (founded 1858); to the north the valley of Marlemund which opens out towards the head of the Seegoor Pass. Between the Ootacamund and the Marlemund valleys is a hollow, across the outlet of which a dam has been thrown, forming the Marlemund reservoir, from which through a channel nearly three miles in length the northern portion of Ootacamund is supplied with water. The houses occupied by Europeans in the station have generally not less than five or six acres of land attached, and many have from twenty to seventy acres. In the chief native bazaar on the border of the lake some two or three thousand persons are congregated; and perhaps half of this number again in Caundal, a bazaar in a small valley to the west of the station. But a large number of natives have their homes in scattered hamlets, chiefly in the eastern portions of the station. The inhabitants of these hamlets are chiefly Canarese, with a sprinkling of Tamuls. There is no Badagah village within municipal limits, and only three or four Todah munds. The nearest railway station is Mettapolliem, 327½ miles from Madras on the Madras Railway, 32¼ miles by road from Ootacamund by the Coonoor new ghaut, and 24½ miles by the old road. A railway on the Righi system is being undertaken to connect Mettapolliem and Ootacamund, viâ the Coonoor ghaut.

2. *Elevation, &c.*—The elevation of Ootacamund varies from about 7,150 feet above sea-level, at the ordinary water-level of the lake, to 8,642 feet at the summit of Dodabetta. The height of Elk Hill is 8,090 feet. St. Stephen's Church (tower) stands 7,429 feet above sea-level, and probably 7,350 feet represents the average height of private residences above the sea. The annual rainfall at Ootacamund is 44·88 inches. The mean temperature for the year is 58°. The variations of the temperature average about 18° in the 24 hours. The extremes in the shade are from 38° in January to 76° in May.

3. *Area and population.*—The area of the station, lying within a circle of three miles' radius from the Jail Hill, is 19,300 acres, or about 30 square miles. The exact area of the Municipality of Ootacamund is probably about ten or twelve square miles. The municipality contained, in 1881, 12,335 inhabitants, of whom 8,021 were Hindoos, 1,364 Mahomedans, and 2,950 Christians.

4. *Municipality.*—The town of Ootacamund was first constituted a municipality on the 3rd October 1866. Prior to this a Station Committee had existed, which had made some efforts for the improvement of the town. At present all the taxes detailed in Act III of 1871 are in force with the exception of tolls, and are collected at maximum rates. In lieu of tolls the Government undertakes the repair of the principal thoroughfares of the station, which are excluded from the operation of the Municipal Act, at a cost of about 5,000 rupees annually. The tax on professions was abolished in 1874-75 by Lord Hobart's Government, but, owing to the financial necessities of the station, was reimposed in 1878-79. The Government, in consideration of the neglect of past years and the peculiar circumstances of the town as the chief sanitarium in South India, besides constructing the two large water reservoirs (at Marlemund and Dodabetta), with supply-channels for the north and south portions of the station at a cost, direct and indirect, of probably not less than Rupees 35,000, have expended considerable sums on the construction or reconstruction of roads within the station, and also on the improvement of the town bazaar and the reclamation of the upper lake besides providing gratis for some years for these and other sanitary works the services of a large gang of convicts.

5. *Limits of the Municipality.*—The following are the limits of the Ootacamund Municipality. A line drawn from the north side of the Craigmore cutting to the top of the Craigmore hill; from there to the top of Dodabetta, on to the top of Snowdon; and from thence to Marlemund to the top of juncture of two roads leading from Ootacamund station. From this point at Marlemund the boundary runs in a direct line to the top of Baitmund hill; from thence to the top of a sholah planted with Australian trees, and then on to the second mile-stone on the Seegoor road. From the Seegoor road to a point on the Pykara old road, from which the road to the Government brick-field diverges; then from the Pykara old road through the brick-field valley to a point on the nullah below the new Pykara road, at which a bridge formerly stood. From the point at which the bridge stood the boundary then runs to the road leading to the Governor's sholah to where three roads cross one another, and then on to a swamp close at hand following the course of the water which crosses the Avalanchey road, and falls into the stream below. From the stream the boundary then goes in a straight line to the top of the Cairn hill and down to the Lovedale stream, below the western boundary of what was Colonel Taylor's land. From this point to the boundary up the Lovedale stream until it gets close to Craigmore, when it strikes up to the cutting whence it first started.

6. *Market.*—There is a weekly market called a "shandy" held every Tuesday, which yields the Municipal Commission a revenue of about 3,000 rupees a year—the right to levy fees at certain approved rates being farmed out—for the sale of general produce, wares, poultry and vegetables. There is at present no market for the sale of meat. Such an institution is much needed, as also a permanent market for the sale of vegetables, fruit, and poultry. Plans and estimates have, however, been made and approved of for supplying this want, and the Municipal Commissioners have, under the authority of Government, raised the required funds amounting to Rupees 50,000. It is, therefore, probable that before the end of 1885 this much-needed public building will have been completed. The weekly market is supplied with staple food-grains and poultry from the low country, chiefly Coimbatore, and garden produce mostly from the neighbourhood of Ootacamund.

7. *Sanitation.*—The sanitary condition of Ootacamund at the time of the establishment of the Municipal Commission was very indifferent. Much was done in the succeeding nine years to remedy some of the worst features, but in consequence of the outbreak of cholera in 1877 in the hill stations, when the district was suffering from drought and famine, the Government appointed a committee. The following reasons partly account for the difficulties in the way of improving the town. The site of Ootacamund has been well chosen, but from its commencement until now it has never been systematically treated, the town having been allowed to grow up uncontrolled. The gradients of many of the roads are inconveniently steep. The town would have been better served by fewer roads properly aligned. Houses have been built without guidance; the locality of many is objectionable and the construction of most is poor and insanitary. Lands have also been recklessly sold to private individuals, who have in many cases allowed them to remain unutilized and unenclosed. It is difficult now to obtain space for real public wants. The system of sanitation in the populous portions of the station is to remove the excreta without deodorization and to take the sweepings in carts drawn by bullocks considerably beyond the town. A system of dry-earth conservancy, including the manufacture of poudrette with ashes of sweepings and slaughter-house refuse and pulverized bone, was in force for two or three years, but has been, from various causes, discontinued. It may again be revived if a demand for the manure arises.

8. *Principal buildings.*—The following are the principal public or quasi-public buildings in Ootacamund :—

- St. Stephen's Church.
- St. Thomas' Church.
- The Tamul Mission Church.
- The Church of the Blessed Virgin Mary (Roman Catholic).
- The Goa Church.
- Zion Chapel (Non-conformist).
- Government House (Norwood).
- The Council Chamber and Secretariat (Stonehouse).
- The Courts and Offices of the Collector and Magistrate and Subordinate Judge.
- The Neilgherry Public Library.
- The Breeks' Memorial Schools.
- St. Bartholomew's Hospital.
- The Jails.
- The Police Station and Lines.
- The Post Office.
- The Telegraph Office.
- The Madras Bank.

The Travellers' Home.
The Nazareth Convent and Schools.
The Subsidiary Jail (now used as a Municipal Workshop).
The Hobart Native Girls' School.
The Wesleyan Mission School.
The Pavilion.
The Ootacamund Club.
Brown's Assembly Rooms.
Freemasons' Lodge.
The Market.

The architecture of several of these buildings is in good style, especially that of St. Thomas' Church, the Breeks' Memorial School, the Post and Telegraph Offices, and the Government buildings on the Stonehouse property.

9. *The Public gardens.*—The public gardens are noticed in the descriptive notice of the Neilgherries. They belong to Government and are under the management of the Director of Government Cinchona Plantations, Botanical Gardens and Parks.

10. *Societies.*—Much has been done in Ootacamund by means of local committees formed for the attainment of a special, sometimes a purely temporary, object. To such agencies several of the buildings above enumerated owe their existence, more especially the hospital, the library, and the various churches and schools. Among those now existing may be mentioned the library, the hospital, and the Friend-in-Need committees. The Hunt committee have recently made arrangements for keeping a pack of fox hounds permanently at Ootacamund, and hunting takes place twice a week during the season from April to August. The open downs to the north-west of the station form a riding ground, which is without a rival in India. There is a sufficiency of covert, and jackals which take the place of foxes can always be found.

11. *Rents, &c.*—The rent paid for houses is high during the season, ranging from about 75 rupees a month for four-roomed bungalows to 300 rupees for the largest houses. This rental, however, ordinarily includes a certain amount of furniture, house-rates, and the services of a house gardener. The value of house property is low when compared with the rental. A house which would command a rental all the year round of Rupees 100 monthly would probably not realize 10,000 rupees if sold, unless the domain was large and the land good. This is partly due to the absence of capital in the place, the changing character of the population, and also to the heavy cost of repair, many of the houses having, wholly or in part, been built of inferior materials, such as sun-dried brick and mud and poor timber covered with coarse stucco, choonam being very expensive. Some improvement is taking place in building. The first house in Ootacamund was built by the then Collector of Coimbatore in 1821.

PARLAKIMEDY.

[*For a description of this zemindarry, see the foot-note in the article on Zemindarries, Chapter I.*]

PITTAPORE.

[*For a description of this zemindarry, see the foot-note in the article on Zemindarries, Chapter I.*]

POODOOCOTTAH.

Description.—This Native State, otherwise called the Tondiman's Country, lies between 10° 15′ and 10° 29′ N. lat., and between 78° 45′ and 79′ E. long., and is entirely surrounded by the British districts of Tanjore, Trichinopoly and Madura. Its area is 1,046 square miles; its population, 316,695, almost entirely agricultural. The country is for the most part a flat plain, interspersed with small rocky hills, some of which are crowned by old forts. In the south-west, hills and jungles are found, but elsewhere the State is well cultivated. There are 3,000 tanks, some of considerable size. The gross revenue of the State is about 5 lakhs of rupees, but the alienations of land revenue are extensive. Members of the Rajah's family hold 110,000 acres, 95,627 acres have been granted to temples, and 9,584 acres to alms-houses. The inams or rent-free grants held by Brahmins, and the various tenures of service, amount to 100,000 acres. After these deductions, only 2 lakhs of the revenue is payable to the Rajah. The first connection of the British Government with this chief, then usually called Tondiman (a family name derived from a Tamul word meaning ("a ruler"), was formed at the siege of Trichinopoly in 1753, when the British army greatly depended on his fidelity and exertions for provisions. Subsequently, he was serviceable in the wars with Hyder Ally and in the Poligar war, the latter being the name given to the operations against the usurpers of the large zemindarry of Shivagunga in Madura district after the cession of the Carnatic. In 1803, he solicited as a reward for his services the favourable consideration of his claim to the fort and district of Kilanelly situated in the southern part of Tanjore. This claim was founded on a grant by Prataup Sing, Rajah of Tanjore, and on engagements afterwards entered into by Colonel Braithwaite, General Coote, and Lord Macartney. The Government of Madras granted the fort and district of Kilanelly; and the cession was confirmed by the Court of Directors, with the condition that the district should not be alienated, and that it should revert to the British Government upon proof being given at any time that the inhabitants laboured under oppression. The present Rajah, Ramchendra Tondiman Bahaudur, has received a sunnud granting the right of adoption. He maintains a military force of 126 infantry, 21 cavalry, and 3,260 militia, besides armed servants and watchmen.

PULNEYS.

Description.—This is a range of hills in Madura district, lying between 10° and 10° 15′ N. lat., and between 77° 20′ and 77° 55′ E. long. They extend in a north-easterly direction from the Western Ghauts, with which they are connected by a ridge of hills about 8 miles wide, being completely isolated on every other side. To the north are the districts of Coimbatore and Trichinopoly; to the east Madura and Tanjore; to the south and west Tinnevelly and Travancore. Their length from east to west is 54 miles; average breadth, 15 miles; superficial area, 798½ square miles, including Anjanaud, now a dependency of Travancore. The native name of these mountains is a Varahagherry or 'Pig-mountain.' The origin of the name Pulney is not known. The Pulneys are divided into two groups, the higher and the lower, or the west and east ranges. The mean elevation of the former is about 7,000 feet, of the latter from 3,000 to 4,000 feet. There are six ghauts up to the lower Pulneys; all of a very rough description. This range is generally known to the natives under the designation of the Tundigoody and Viroopatchy hills. The higher range, which has plateaux of over 100 square miles, is said to reach an elevation of 8,500 feet in one of its peaks. The rocks (composed of gneiss with quartz and felspar) are covered with heavy black-soil and traversed by numerous streams. The only made ghaut up to the higher Pulneys on the south side is that from Periyacoolam to Kodaykarnal. There are six other passes but they are unmade. The total population of the hills according to the last census is 18,633 souls; 13,146 on the lower ranges and 5,487 on the higher. The whole range may be divided, generally with reference to natural boundaries, such as prominent ridges or rivers, into seven principal divisions, viz.: —(1) The Yettoor or 'eight villages' at the extreme west; (2) Poombaray also at the extreme west; (3) Vilputty, more to the east; (4) Covinjy, to the north; (5) the Peraiyoor hills; (6) the Pandimullay, Andaloor, and Manaloor hills; (7) the Tundigoody. Of these divisions the fourth and sixth belong to the Ayacoody and Cannivaudy zemindarries; the first three form the upper range, the other two form the lower range. The range is connected with the railway at Ammayanayakanoor (40 miles distant) by a practicable pass, and other roads connect it with Travancore on the west and Madura on the east.

2. *Fauna.*—The following wild animals are met with on the Pulneys:—Tigers, panthers, wild cats, bear, bison, samber, ibex, spotted deer, jungle sheep, wild hog, wild dogs, jackals, mongooses, marten cats, and squirrels. Of birds, there are three kinds of eagles, the large brown, the crested, and the black; a great variety of falcons and hawks; the pea-fowl, jungle-fowl, spur-fowl, and hill quail; the black bird, thrush, minah, bulbul, and others. Elephants are now seldom seen.

3. *Hill Tribes.*—The inhabitants of the hills are divided into the following tribes:—(1) Manadies, Coonoovar (mountaineers), or Koravar; (2) Vellalar; (3) Chetties or Banyans; (4) Pooliyar. The Coonoovar are supposed to be a caste of lowland cultivators, who came up from the Coimbatore plains some three or four centuries ago. They are the chief landed-proprietors, possess large herds of cattle, and compared with the other tribes seem to be in easy circumstances. When a Coonoovan marries, the whole tribe is present; and to avoid unnecessary expense, marriages are generally put off till two, three or more can be celebrated at once, each family contributing towards the expenses. Incompatibility of temper is a sufficient ground for divorce. Polygamy prevails. Amongst the Western Coonoovar the following custom prevails:—When an estate is likely to descend to a female in default of male issue, she is forbidden to marry an adult, but goes through the ceremony of marriage with some young male child, or, in some cases, with a portion of her father's dwelling-house, with the understanding that she shall be at liberty to cohabit with any man of her caste whom she prefers, and her issue thus begotten inherits the property, which is retained in the woman's family. Numerous disputes originate in this custom, and evidence has been adduced in courts to show that a child of three or four years was the son or daughter of a child of ten or twelve. The religion of the Coonoovar is nominally the Sheiva, but they pay worship mainly to the mountain-god Valappan. The Karakat Vellalar probably settled on the hills at a remote period. They are abstemious in their diet, but chew opium and tobacco and smoke, and are not averse to meat. They anoint themselves with ghee instead of oil; wear the same dress as the Vellalars in the plains; abstain from the use of sandals; and invariably ornament their ears with rings. Their ceremonies are performed by Pandarams, though Brahmins officiate as priests in the temples. They associate freely with the Coonoovar, and each can eat food dressed by each other. When his wife proves barren, a man may with her consent marry a second, but in no other case is a plurality of wives allowed. Widows are free to remarry. In 1824 these Vellalars were in the habit of purchasing prædial slaves of the Pooliyar caste, giving thirty fanams for a male and fifty for a female. The Chetty class from their immediate connection with the people of the plains are reckoned aliens to these hills. Their comparative affluence has procured for them the office of mediators in all serious disputes among the other tribes, under the impression that being strangers to the hills, they are likely to act impartially. They trade largely in the hill produce, make advances on crops, &c., and import low country goods for sale, or barter among the various tribes. The Pooliya tribe is the most numerous on the hills, and they are regarded as the aborigines. They are in some degree slaves to the Coonoovar and hold a degraded position. In spite of this they possess considerable influence over the Coonoovar and other tribes as priests and physicians, for they alone are believed to understand the use of the various medicinal herbs, and alone can offer charms and incantations to the local deities. Their position has been ameliorated during recent years. As a body they are mild and inoffensive. They are fond of hunting, dividing themselves into two bodies, one to beat and the other to shoot. They kill tigers, either shooting or poisoning them. The whole of these tribes are more or less addicted to indulging in a species of beer called 'boja,' made from raggy.

4. *Forests.*—There are four forest tracts on the Pulneys, respectively, on the north face, on the south face, on the east face south of the village of Palakaroot, and on the plateau of the upper and lower ranges. The trees are the same as on other hills, including teak, blackwood, vengay, and cedar. The forests on the slopes are of considerable value containing much vengay and other valuable timber. Numerous feeders of the Amravatty have their rise on the north-east slopes near Kookaul and Poombaray valleys in the upper Pulneys. On the recommendation of the Forest committee which assembled in 1880, eight tracts on the slopes towards the Periyacoolam and Pulney talooks, comprising an area of 76·61 square miles in the upper Pulneys and five tracts with an aggregate area of 27·2 square miles in the lower Pulneys were constituted as forest reserves, several important sholahs were also reserved. The shingle tree (Acrocarpus fraxinifolius) grows to a great size, several trees measuring upwards of twenty feet in girth at six feet from the base.

5. *Agriculture.*—The native cultivation is carried on in fields cut into terraces, on the spurs and slopes of the mountains, and laid out with considerable skill and labor. The products of the higher range are garlic, rice, mustard, wheat, barley, vendayam, tinnay, and a few potatoes. Garlic is the staple product and chief article of export. The other produce is chiefly grown for home consumption. The hill people are fully acquainted with the value of manure, which is carefully preserved and used in a liquid form. They are also well skilled in irrigation and construct dams at the most advantageous points, conveying the water by means of narrow channels along the steep sides of the mountains to their fields. Their agricultural implements are similar to those used on the plains, viz., the plough, harrow, hatchet, momatty (native hoe), and a small reaping sickle. They possess considerable herds of cattle. The oxen and buffaloes are used for agricultural purposes. Compared with the fine breed of Todah buffaloes on the Neilgherries, the Pulney buffalo is an insignificant animal. There is a considerable traffic between the hills and the plains. The chief article of import to the hills is salt; cloth and other necessaries are also brought up and bartered for hill products, principally garlic. The whole of this traffic is carried on by Chetties and Lubbays, who make very large profits. On the lower Pulneys there are many coffee-plantations. Several portions of the upper range are also well adapted for its growth. Round about Kodaykarnal the soil is very productive, and could be turned to good account in growing wheat, barley, and other cereals. New Orleans cotton has been tried and succeeded at 5,000 feet above sea-level. There are extensive and good grazing grounds entirely unoccupied. The native products of the lower range are turmeric, ginger, cardamoms, plantains, vendayam, castor-oil seeds, rice, samay, varagoo, tinnay, raggy, cumboo, and potatoes. The chief staple of export is a peculiar sort of plantain. In the jungles are found the jack, mango, orange, lime, citron, pepper, and wild cinnamon and nutmeg. Teak, blackwood, and sandalwood are now scarce. Much of the best forest land has been exhausted by plantain cultivation. After selecting an eligible spot, the trees are felled and burned. As soon as the soil is exhausted, another piece is taken.

6. *Climate.*—The climate is milder and of a more even temperature than that of Ootacamund, though the altitude of Kodaykarnal is within a few feet of that of Ootacamund lake. The rainfall is less than that of the Neilgherries, but it is more equally distributed throughout the year. January, February and March are fair, clear, dry and cold. April and May are the warmest months. The south-west monsoon continues through June, July and August. September and October are uncertain months, depending on the south-west monsoon. At the end of September, the wind begins to shift round to the north, and the weather becomes colder. Mists and fogs are common throughout the year, and there is an occasional gale of wind. Frost is often severe at the end of December. The lower range is feverish, but the higher portion is very healthy, and the malaria of the lower portions might be reduced by draining the swamps.

RAMANDROOG.

Description.—Sundoor contains a very important hill sanitarium for Europeans in the plateau of Ramandroog. Permission was obtained from the Rajah in 1846 to establish a sanitarium there, and it has since been utilized chiefly as a convalescent depôt for the troops serving in the Ceded Districts. Ramandroog is distant from Bellary 38 miles, and from Secunderabad 270 miles. The station is built on an elevated plateau 3,150 feet above the sea-level, 1,825 above Bellary, and 1,200 feet above the surrounding plains. The greatest extent of the plateau is from north to south one and a half miles, and it varies in breadth from half to three-quarters of a mile. The general aspect of the surface is undulating, the eastern ridge of the hill being more than 100 feet higher than the western; the ground gradually slopes down from the former to the latter, where in many places the descent to the western plains is very precipitous. Owing to this conformation no rain-water lodges on the hill. The soil on the plateau formed by the disintegrated rock is scanty, but sufficient in some spots on the west and south sides of the hill to admit of a certain amount of cultivation;

on the eastern side the rock is generally bare. During the months of January, February, and March the air is cool, dry, and bracing, being generally 12° cooler than at Bellary during the same period. April and May may be called the hot months, when the mean of the thermometer is about 80°. The mornings and evenings during these months are however cool and pleasant, and towards sunset a fresh breeze sets in from the west. Early in April and during May partial showers fall; the air, except in the early mornings and evenings, is close and sultry, and the sky becomes cloudy. Towards the end of May banks of clouds are seen forming in the west, and occasional heavy showers of rain fall. This is soon followed by violent storms bringing in the south-west monsoon. Rain continues with occasional breaks till the middle of October, after which, to the end of the year, the rainfall is inconsiderable. During the south-west monsoon fogs cover the hills from sunset till 9 or 10 o'clock next morning, the thermometer in the early morning falling to 62° Fahrenheit. The damp chilly state of the atmosphere at this period necessitates the use of fires in barracks and houses. The north-east monsoon sets in about the middle of October, and a cold wind prevails from the north-east quarter till the end of February, when it gradually veers round to the south-west. During the south-west monsoon the sides of the hill and the ravines and nullahs at the base contain a large amount of decaying vegetable matter. After the rains are over the surface of the country rapidly dries up and the atmosphere becomes full of impurities; this probably accounts for the not unfrequent occurrence of malarious fever during the period of the year just mentioned. The rainfall is greater than in the plains, but seems to have fallen off in the last few years—a fact which is probably due to the unlimited destruction of trees and shrubs during the minority of the late Rajah. The climate of Ramandroog is suitable for cases of general debility, unattended by organic disease. Hepatic, cardiac, rheumatic, pulmonic and bowel affections appear to be aggravated by the climate, especially during the rains. All cases of glandular affections derive great benefit, and children of a scrofulous habit of body thrive remarkably. The depôt can accommodate 60 single men and 10 families. There are three good roads up to the Droog, one by Yettinhutty and Bauvihully, which is the one used by travellers from Bellary; one from Hospett; and the third, the steepest of all, from Narraindevakery. There are about fifteen houses on the Droog belonging to Bellary residents. Two carriage roads run along the whole platform, and many good bridle roads have been cut along the sides of the hills to the north and south.

RAMNAUD.

[*For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I.*]

SALEM.

Description.—This district lies between 11° 2′ and 12° 54′ N. lat., and between 77° 33′ and 79° 6′ E. long. The area is 7,483 square miles; and the population, according to the Census of 1881, 1,599,595 persons. It is bounded north by Mysore and North Arcot, east by Trichinopoly and South and North Arcot, south by portions of Coimbatore and Trichinopoly, and west by Coimbatore and Mysore. The administrative head-quarters are at Salem Town.

2. *Physical Geography.*—Except towards the south, the district is hilly, with large plains lying between the several ranges. The chief of these ranges are the Shevaroys (highest point, 5,410), the Kalroyens (about 4,000), the Melagherries (4,580), the Kollamullays (4,663), the Patchaimullays (about 4,000), the Yelagherries (4,441), the Jawaudies (3,840), the Vattalamullays about (4,000), the Yeralvaunies and Valasimullays (about 3,800), the Bothamullays (about 4,019), the Toppoor Hills, and the Talamullays. There are also innumerable detached peaks and smaller ranges. The district has been described as comprising three distinct tracts of country, known as the Talaghaut, the Baramahaul, and the Balaghaut divisions. The Talaghaut division, as its name implies, is situated below the Eastern Ghauts on the level of the Carnatic generally, and in soil and climate differs but little from the neighbouring districts of Trichinopoly and South Arcot. The Baramahaul division includes the whole Salem face of the Ghauts and a wide tract of country at their base; and the Balaghaut is situated above the Ghauts, on the tableland of Mysore. Of the Oossoor talook, only one-half to the north is really Balaghaut, the southern half lying considerably below the level of the Mysore plateau. Oossoor itself is about 3,000 feet above the sea. Dharmapoory is about 1,500 feet, and Krishnagherry from 1,500 to 2,000 feet above sea level. Tripatore and Ootancaray lie in one basin, and average slightly over 1,350 feet above sea level. At Salem there is a considerable drop, the town of that name being only 947 feet above the sea. The climate is generally dry, and in the northern portions cooler than in the south; the climate of Oossoor being as temperate as that of Bangalore. The chief river of the district is the Cauvery, from the left bank of which a large area in Trichengode and Namcull is irrigated. The Palaur only flows through a few miles of the northern corner of the Tripatore talook, where it does nearly as much harm as good, as comparatively little use is made of the water, and the town of Vaniyambaudy lies at its mercy. In 1874, a considerable portion of this town was washed away, and it is only a question of time when the remainder, hitherto preserved at considerable cost, will follow. The Pennair, rising in Mysore territory, flows through Oossoor and Krishnagherry to Ootancaray, where, near the South Arcot frontier, it is joined from north and south by the Pambaur and Vaniyaur, minor streams. The Shanatcoomauranuddy traverses Oossoor and Dharmapoory, in the latter talook, near Marandahully, being tapped with profit to ryots and Government. The fertility of the Ahtoor talook is chiefly due to the Vasishtanuddy and Swetanuddy, which flow eastward into South Arcot. There are, besides these, numerous tributaries of the Cauvery. A small traffic is carried on the Cauvery in basket boats, and timber is occasionally floated down. The water of these rivers is utilized either by anicuts thrown across their beds or by channels which tap the banks. The channel system is very extensively worked in the Paramatty Division of the Namcull talook. The fisheries of the district, although they make a considerable total, are individually insignificant, consisting of the right of fishing in the different Government tanks, which is purchased for sums varying from Rupees 5 to more than Rupees 200. The district forests are of considerable value, but there is some reason to fear that they have been over-worked, with a view to immediate profit rather than ultimate revenue. The Jawaudy and Yelagherry Hills still contain some valuable timber, and a large portion of the Shevaroys is clothed with middling-sized jungle. Sandalwood is found. The most valuable forest is the belt of vengay (Pterocarpus marsupium) on the hilly tracts which fringe the Cauvery in the south of the Oossoor talook and towards Pennagaram. Reserves and plantations have been formed for the supply of fuel to the railway, but at the present stage the experiment is not sufficiently advanced to admit of an accurate estimate being formed of its utility. Jungle produce, such as honey, bees-wax, barks for tanning and dyeing, soap-nut, fibres, medicinal roots, &c., are collected by the Malayalies and other jungle tribes; in some cases this right is rented out. Lac is found in the Oossoor jungles, and both in the hills and on the plains the tamarind is a fertile source of revenue. Wild animals are daily diminishing in numbers, as each hillman carries a gun and shoots for food everything that comes in his way, regardless of sex, age, or season of the year. Bison and even elephants are occasionally seen on the Jawaudies. Leopards and bears are to be found in most of the hilly tracts. Samber deer may be found towards Pennagaram, and in a few places in the Oossoor talook. Hyænas, antelope, deer of several kinds, wild pig, a species of armadillo, and a few wolves complete the catalogue. Pea and jungle fowl, duck, teal, snipe, florican, &c., can be had in season. The geology has been only partially examined. The formation is mostly gneissic, granite and trap dikes cropping up occasionally. The principal varieties of rock belonging to the gneiss which occur in the eastern part are, in the order of their importance and extent of development—(1) Hornblendic schists and rocks; (2) Quartzo-felspathic gneiss, massive or schistose; (3) Talcose and chloritic rocks (generally schistose, rarely massive); (4) Magnetic iron beds; (5) Crystalline limestones. Magnesite veins occur chiefly at the Chalk Hills (so miscalled) near the foot of the Shevaroys. Pot-stone is found in several places. Magnetic iron occurs in practically inexhaustible quantities. Corundum and chromate of iron are also obtainable. The washings of some rivers yield gold, notably the Pennair (more correctly Ponniar, so named on account of its golden sands). It is probable that gold may exist in the Oossoor talook where it borders on Mysore. There is no

coal. Lime is available in sufficient quantities to serve as a flux in iron-smelting.

3. *History.*—The ancient history of the northern and southern parts of the Salem district must be treated separately, as they formed parts of different kingdoms. The northern part was included in the kingdom of the Pallavas, who flourished certainly from the fifth century A.D., and probably long before that, at their capital Cancheepuram (Conjeeveram). When the Pallavas were finally overthrown by the Chola kings of Tanjore, in the ninth century A.D., this part of the country was the only portion remaining to them of their once extensive kingdom. The Pallavas were the excavators of the monolithic "Rathas" at the Seven Pagodas, which fact points to the early supremacy of the dynasty in this part of the country. The Booddhist tope at Amravatty may also be attributed to this dynasty. The boundaries of this kingdom when at its zenith probably extended from the Nerbudda and the borders of Orissa on the north, to the southern Pennair on the south; and on the west from the northern extremity of the Western Ghauts, to the Bay of Bengal on the east. The southern districts of Salem have a different history, since they formed part of the ancient kingdom of Conga. This kingdom was originally confined within the limits of the modern districts of Salem and Coimbatore. A Tamil manuscript with the title of 'Conga-desha Rajakkal,' or the 'Chronicle of the kings of the Conga country' professes to give a history of this kingdom from about the commencement of the Christian era, down to the beginning of the seventeenth century. The kings enumerated in this belong to two distinct dynasties, the earlier line being of the Solar race, and the later line of the Gangah race. The Solar race began with seven kings of the Ratha tribe, the name of the first being Veera Roya Chacravurty. The capital during this period was Scandapoora, the locality of which has not been identified. An important mark of the contact of Conga with the western world in ancient times, and of its own early prosperity, is obtained from the circumstance that Salem and its surrounding neighbourhood has been the chief seat of the manufacture of the finest steel, apparently from the earliest ages. It has been plausibly conjectured that the ancient Egyptians used Indian steel for the tools with which they carved hieroglyphics on obelisks and temples. It is also a certain fact that when Alexander the Great was in India, Porus made a present of steel to him. Under the second or Gangah dynasty the limits of the kingdom were greatly extended towards the north-west. The list of these kings given in the chronicles agrees, with very few variations, with the pedigree discovered from their published land-grants, and therefore is probably genuine. The cause of the extinction of the earlier dynasty is not recorded, but probably the last Solar king lost his life in an attack on the Gangah chieftain of Southern Mysore, who followed up his advantage by seizing the vacant throne of Conga. The third king of the Gangah dynasty, Hary Vurmah removed the capital from Scandapoora to Talacaud about A.D. 290. The second period of the ancient history of Salem extends from the conquest of Conga by the Cholas, down to the rise of the Ballaula kings of Carnata, a period of about two centuries. The Ballaula kings may be regarded as the rulers of the kingdom from about 1069 A.D. Eight kings of this line ruled over Carnata which included Salem. The latter district then became tributary to the kings of Vijianugger about 1350 A.D., and continued to form part of their empire till its overthrow in 1565 A.D. Even after this downfall, all the southern portion of the Vijianugger empire was left in the hands of the old kings, forming still a very extensive kingdom. About the beginning of the seventeenth century, Salem became a dependency of Madura. It was visited and mentioned by Robert de Nobilibus in 1623 A.D., and two among the Madura poligars instituted about this time by Vishwanatha belonged to Salem, namely, Ramchendra Naick of Talamullay, and Ketty Moodelliar of Taramungalam. During the next century Salem comes into prominence in connection with Hyder Ally's wars, many of the operations of which were conducted in this district. In 1760 Hyder seized the Baramahaul, and made it the rallying point for his detachments on their way to the war in Arcot. In 1767 the English, Nizam Ally, and the Mahrattas jointly attacked Hyder, and an English force attempted the reduction of the Baramahaul but without much success. Nizam Ally then deserted the English and went over to Hyder. After a period of desultory warfare, confined chiefly to the Baramahaul, Nizam Ally made overtures of peace to the English, and by a treaty in February 1768 joined them again, abandoning Hyder. During this period the English captured in rapid succession most of the fortified places in the districts of Salem, Erode, Coimbatore, and Dindigul. Subsequently Colonel Wood, who was in command of the English force, met with a series of reverses, and was consequently superseded by Colonel Lang. This however did not prevent Hyder from retaking all the places previously captured by the English, and finally peace was concluded in April 1769. War broke out again with Hyder in 1780, which continued after his death in 1782, peace being concluded with his son Tippoo in 1784. This only lasted till 1790, when war broke out again chiefly owing to Tippoo's attack on Travancore. An English force under Colonel Kelly attacked the Baramahaul, which by the next year was almost completely in the hands of the English. The remaining operations, which were not connected with this part of the country, terminated in the siege of Seringapatam and the treaty of 1792, by which, among other cessions of territory, the whole of the present district of Salem, except the Oossoor talook, comprising what was known as the Talaghaut and Baramahaul, fell to the English. After the final defeat and death of Tippoo in 1799, the Oossoor talook, known as the Balaghaut, also came into the possession of the English under the provisions of the Partition Treaty of Mysore. The district of Salem, as at present composed, contains nine talooks, of which two are directly under the Collector, three under the Sub-Collector, two form the Head Assistant's charge, and two are in charge of the general Deputy Collector. Its limits are now identical with those of 1799, except that the Cungoondy zemindarry, north of the Palaur, was finally transferred to North Arcot in 1808.

4. *Archæology.*—There are a large number of rude stone monuments in the district, which have attracted particular attention. On the side of the Caroovauttaur river in the Namcull talook is an embankment, said to have anciently marked the boundaries of the Pandiya, Chola, and Conga kingdoms. There are not many Hindoo antiquities as yet discovered in the district. A reference to Vol. III however will show a complete list of all villages in the district containing such.

5. *Population.*—The Census of the district, from which safe deductions can be made, is that of 1881, though it is probable that for rough calculations the earlier enumerations were sufficiently near the mark. In 1800, the population was returned at 612,871; in 1835, at 905,190; in 1850, at 1,195,367. Since that time quinquennial Censuses have been taken; and in 1881, the regular Census showed a population of 1,599,595, or an average of less than 5 persons to each house. The males numbered 778,483, and the females, 821,112. Hindoos predominated, numbering in all 1,531,855, or 95·7 per cent. of the population. Of Mussalmans, there were 51,092, or only 3·1 per cent.; and of Christians, 16,567, or 1·04 per cent. Amongst Hindoos, the Shiveites out-number the Veishnavites by about 2 to 1, the other sects being only fractionally represented. Of Mussalmans, the great majority are Soonnees. Emigration is not considerable, but a few coolies go to Ceylon, the French colonies, and Burmah. There is no immigration to speak of. More than half of the population is engaged in cultivation. Salem, the capital, is situated on the Tiroomanimoottaur, about 6 miles from the foot of the Shevaroys. It is a municipality, with a revenue of Rupees 50,401 in 1882-83 and a population of 50,667. There are 13 other towns with a population of over 5,000, of which Tripatore and Shendamungalam are the most important. Reading rooms or literary associations have been established at Salem, Yercaud, Oossoor, and Tripatore. The chief source of charity is the Toppoor Chuttram Fund, from which serais (native inns), &c., are being provided all over the district. Those at Salem, Toppoor, Jollarpett, Ahtoor, and Tripatore are amongst the best. Besides the hospital and dispensary at headquarters, there are 9 dispensaries scattered over the district, and scarcely a large village is without its own cleaning and sanitary staff. Salem contains no shrine to compare in magnificence with those of Madura, Tanjore, or Shreerungam; but pilgrims crowd to the sacred springs on the Teertamullay, to Hanoomateerta on the Pennair, to the pagoda at Oossoor, to the Audipathinett at the falls of the Cauvery, and to the festivals at Dharmapoory, Mecherry, and other places. The chief shrines where the Malayalies worship are on the Shevaroys and the Chittairimullay Hills near Haroor. There are printing presses in the Collector's office and in the central jail. There is a private press called the Patriot Press, which publishes a local newspaper in vernacular bimonthly.

6. *Land tenures and agriculture.*—Immediately on the acquisition of the Talaghaut and Baramahaul, Colonel (then Captain) Read was placed in charge, with Captains Graham, MacLeod, and Munro (afterwards Governor of Madras) as his assistants. He at once addressed himself to the survey of the district, and to the introduction of a uniform revenue system, which was started

throughout this portion of the district in 1796, as a ryotwarry system to be confirmed for ever. This, however, met with no favour at headquarters, where the idea of leases on the zemindarry system had been resolved on. The zemindarry system was formerly unknown in Salem, but the Government ordered it to be introduced. In 1799, Read, with Munro as his secretary, followed the tide of war into Mysore, and never returned to the district. A new administrator succeeded them, and so faithfully carried out orders, that by 1805 the zemindarry system was in full force everywhere, except in the Balaghaut, which escaped owing to its being a recent acquisition, and, after being leased out for two years to two natives, was finally surveyed in 1804, since which time it has prospered. Great losses followed on the overthrow of Read's settlement. The 205 estates existing and paying 16 lakhs of rupees in 1805, had by 1821 been so reduced in value that they only paid 8 lakhs, which in 1836 fell to 5 lakhs, and in 1850 to 4½ lakhs. Various causes, into which it is needless to enter here, were at work to bring about this result, and a series of remedies, unsuccessful because they did not go to the root of the mischief, were tried. There can be no doubt, however, that notwithstanding all Read's care and zeal, he had in many cases over-assessed the soil. The zemindars had, before 1813, to some extent given satisfactory evidence that this was so, by reducing rates on 'wet' lands throughout by one-sixth, and on 'dry' land from one-eighth to one-fifth. The end soon came. Before the zemindarry system had been in existence for five years, those in authority began to hesitate. Their first step in retreat from the false position which had been taken up was made in 1809, when, failing bidders for estates sold for arrears, the Collector was empowered to bring them under his own management, a policy extended in 1813 by permission to buy in such estates at auction on behalf of Government. This politic step was afterwards modified by a restriction of the bid to the amount of the arrears.

7. On such estates coming under Government management, the district officers had opportunities for more closely studying the causes which led their owners into bankruptcy, consequent on which the conviction became fixed that, to insure stability of revenue, a reduction in the demand was needed. This however was only done in a hesitating and partial manner. Thus, in 1816, the assessment in the southern part of the district was reduced generally by 10 per cent.; and in 1818, the Collector was empowered to make a discretional reduction not exceeding 30 per cent. These benefits touched the ryotwarry lands only, and rightly so; for, apart from the fact that a reversion to the State as the direct landlord is the most important factor in securing prosperity to the tenantry of the district, the zemindars were even on equitable, much less on legal, grounds entitled to no consideration whatever, as, in fixing the peshcush (revenue) payable by them, the cultivated land alone had been taken into account, all the waste being made over free and for ever. In the present day it is hard, with telegraphic communication, and Salem within half a day's journey from Madras, to realize the darkness in which the authorities formerly were as to the state of the district. Even Munro, when Governor of Madras, than whom no one then living took more interest in the district, was ignorant of important changes which had been introduced into the revenue system. The one thing plainly perceptible at Madras was that the revenue was diminishing and uncertain; the causes were unknown, or if known, wrong deductions were drawn from the facts. To stimulate the extension of cultivation, the suicidal panacea of the cowle tenure was resorted to in 1822. Cowle, ordinarily signifying an agreement of any kind, in the sense in which it is here used, indicates a tenancy under which the ryot, taking up fresh lands, pays no assessment for the first year, half rates for the second, and full rates for the third year. The terms of the tenancy may vary from this, but the principle is the same. The result was a foregone conclusion. Ryots already holding over-assessed or fully-assessed lands snapped greedily at the bait, and for the first two years or more, as the case might be, all went on prosperously; but in the year when Government should have reaped the full benefit of their concession, the ryots turned round and relinquished their new holdings. Many were the recipes devised to avert the necessary consequence of the measure. The cowle tenure was prohibited unless the puttah land was retained; the ryots should only resign good and bad lands in equal proportions, and might not cling to the one and despise the other. The system was doomed from its birth, and received its death-blow in 1850. As regards the over-assessed lands, the percentage reductions of 1816 to 1818, above referred to, affected the whole tract rateably, but had no operation towards effecting a reduction in cases where individual fields or holdings were over-taxed. Further reductions, but still only in the nature of a percentage reduction, were made in 1858 and 1859, and in respect of garden lands in 1864. But it was not until 1869 to 1874, when the settlement now in force was introduced, that the Government demand was universally fixed on equitable and scientific principles. Under this revision, the area under cultivation has risen from 1,050,000 acres, assessed at Rupees 17,30,000, to 1,667,459 acres, assessed at Rupees 21,96,290.

8. The district contains three polliems or zemindarries of importance,—Sholagherry, Bangalore, and Berigay, all in the Oossoor talook. There are 148 mittahs and a few jagheers. But the predominant tenure is ryotwarry, the tenant being liable to ejectment by the Government only in case of failure to pay his revenue. Every year he has the option of throwing up his holding or any field in it, and his assessment is fixed for thirty years. A mittahdar has the right of collecting the pymaish teervay or settled rent, a share of which he pays to Government as peshcush. The tenure cannot be reconverted into ryotwarry, if the mittahdar is in arrears. His right to collect the teervay can be sold by Government, which does not itself enter the market as a buyer. The mittahdars are addicted to leasing their villages, often selling them in shares, and the lessees again sub-letting; the Hindoo system of undivided families multiplies the mittahdars, their middlemen, &c.; the latter and the sub-lessees often get into debt, their rights in the villages being sold by the civil courts; Mussalman inheritance so works in a couple of generations as to produce, instead of one original mittahdar, twenty or thirty such, all owning different shares in the village, according to sex and relationship;—these and other causes all combined often render the ryot uncertain as to who his landlord is. Perhaps two or three persons will at one and the same time, under colourable rights, distrain or attempt to distrain his property. For these reasons, the position of the ryot in mittah villages is unenviable. Added to this, he neither shares in the equitable revision of assessment which takes place in Government lands each thirty years, nor in the annual jummahbundy remissions, granted by Government, when drought, flood, excess of rain, blight, or other accidents impoverish their tenants. If the decision of the civil courts is rightly interpreted to mean that ryots in mittahs are liable to ejectment from year to year, this is not known to the landlords, or if they know it, they do not act on it.

9. Of the total area of the district, about 3,655,271 acres are occupied by Government villages, the remainder being in mittah or polliem villages. The total number of villages in the district is 3,943, with 4,722 hamlets, excluding those uninhabited, which number 745 and 623 respectively. According to the last quinquennial return, the cultivable area belonging to Government, exclusive of land reserved for public purposes, was 1,667,459 acres, assessed at Rupees 2,196,290. Holdings occupied 1,014,316 acres, assessed at Rupees 15,98,014. The number of registered ryots was 245,484, with 47,477 sub-tenants, making a total of 292,961. The puttahs numbered 161,870, of which 102,111 were single and 59,759 joint. The staple crops are rice and raggy (Eleusine coracana), the latter being almost exclusively the food of the labouring class. The yield is assumed, for purposes of assessment, to be 641 Madras measures of paddy or unhusked rice, and 347 Madras measures of the other three staples for the Talaghaut talooks, the out-turn in the Baramahaul and Balaghaut talooks being the same for paddy, but somewhat less on the average for dry grains. Raggy grows to perfection in the Balaghaut, and above the average in the Baramahaul. Cumboo or spiked millet (Panicum spicatum) is about the same as in the Talaghaut; but gram, though remarkably fine, is an uncertain crop, and yields little more than half as much as the other staple grains. The greater portion (82 per cent.) of the classified area of the district consists of red soil, the regar or black cotton-soil occupying 16 per cent. (in the northern talooks, 20 per cent.), and exceptional or permanently improved land, 2 per cent. On a holding of 2 acres of 'wet' and 3 acres of 'dry' land, the net profit would not probably exceed Rupees 60 per annum, or about Rupees 5 a month. The mass of the peasantry are in debt. The habit of indebtedness is so ingrained in their nature, that if they all started fair to-morrow, 50 per cent. would be in debt again in a year.

10. One man is held to be sufficient for the ordinary daily labour on a farm of 3 acres of 'wet,' or 6 acres of 'dry' land, if assisted in the heavy work of planting, weeding, reaping, and threshing. His wages would be 480 measures of grain per annum = Rupees 12, Annas 8, plus an annual money payment of Rupees 3, the wages in the northern being lower than in the southern talook. Twenty-seven measures of seed are required for an acre of 'wet,' and 6 measures for an acre of 'dry' land.

Irrigated crops are weeded twice if sown broadcast, but once only if transplanted. 'Dry' crops are weeded only once. Manure is applied, as a rule, by treading in leaves on 'wet,' and penning out sheep on 'dry' land. For 'wet' lands, the average is 120 bundles of wild indigo or other leaves per acre, and this is supplied annually to all fields thought worth manuring. Eight pens of 200 sheep each, at a cost of 4 measures of grain per diem, is the usual allowance per acre for 'dry' lands. The highest Government 'wet' rate in the district is Rupees 14 per acre, and the lowest is Rupees 11 Annas 9 exclusive of local cesses, the highest for 'dry' lands being Rupees 5 and the lowest Annas 4. The cost of cultivating an acre of good black loam is about Rupees 9 on irrigated, and Rupees 3 Annas 12 on unirrigated lands in the northern talooks, the rates in the Talaghaut being somewhat higher, or Rupees 9 Annas 4, and Rupees 4 Annas 12 respectively. The customary rates of wages for unskilled labour are—for men, Annas 2; for women, Anna 1 Pies 6; for children (male or female), Pies 10. The Wodder or navvy caste get twice as much, but they generally do task-work, by which they gain more than by daily wages. The wages of a working goldsmith vary with the value of the materials, but may be taken on an average at Annas 8 per diem. A blacksmith gets Annas 8; a carpenter from Annas 8 to Annas 10; bricklayers from Annas 6 to Annas 10. During the ten years ending 1874, the prices at Salem town per garce of 9,360 lbs. avoirdupois, in February and March, when the ryots sell, averaged Rupees 103 for rice, and Rupees 115 for cholam or great millet (Sorghum vulgare).

11. *Forestry.*—There are numerous ranges of hills and detached hills in this district. The forests situated for the most part on the hills, or in the valleys formed by them, cover an area of more than 2,000 square miles. The principal range is that known as the Shevaroy Hills rising to an elevation of over 5,000 feet. In addition there are also the Jawaudies, the Kalroyen, the Bothamullay, the Patchaimullay and the Kollamullay Hills, and in the sub-division consisting of the talooks of Oossoor, Dharmapoory and Krishnagherry there are the forests of the Melagherry, Cottahgherry, Manchy Hills and Bilicull, and also a large extent of forest in some low undulating hills between Shunkagherry near Erode and Sholapaudy. There is a considerable amount of evergreen forest on the summit of the higher ranges, and on the outer slopes of most of the hills there is a fair amount of deciduous forest with many valuable varieties of trees. One of the commonest tree is Anogeissus latifolia. There are several kinds of terminalia, blackwood, teak, vengay (Pterocarpus marsupium), satinwood (Chloroxylon swietenia), achah (Hardwickia binata), Acacia catechu, Albizzia, Premna tomentosa, &c. There is a considerable amount of sandalwood in several parts of the district. There are large areas covered with bamboos and scrub jungle. Terminalia chebula (the gallnut tree) grows in great profusion in some parts of the district and yields a large annual supply of gallnuts, in addition to this, among the minor products may be mentioned honey, wax, fibres resins, barks, tamarind, &c., the last-named being very important and yielding a large revenue. Forest work has long been carried on in this district, and considerable progress has been made. The revenue obtainable mainly by the sale of forest produce by permit and by lease is large and steadily increasing. A number of railway fuel reserves have long been in existence and there is a large number of topes. No regular plantations are now in existence. A number of tracts have been selected and notified for reservation under the Act. The division is under the charge of a Second-grade Deputy Conservator of Forests, whose head-quarters are at Salem, and there are nine ranges with head-quarters at Salem, Ahtoor, Namcull, Trichengode, Ootancaray, Tripatore, Krishnagherry, Dharmapoory, and Oossoor.

12. *Commerce and Trade.*—The chief industry of the district is weaving, which is carried on in almost every large town or village, and the weavers of Salem and Razipore are especially noted. Carpets of great beauty and superior workmanship are made in the Salem jail. Good iron and steel are made, and have been made since the earliest times, but only on a small scale, an attempt to utilize the mineral wealth of the district by European capital having failed owing to the cost of charcoal. In Salem there are several cutlers whose wares are famed for temper and finish throughout India. Sugar, cotton, hides, indigo, saltpetre, salt, grains, betel, areca-nut, coir, jungle produce, &c., pass freely in and out of the district, but there is no trustworthy source of information regarding imports and exports. There are about 1,633 miles of road in the district, on which the expenditure in 1883-84 was Rupees 1,36,558; and the state of the roads is fair. The length of railway line within the district is 134 miles. The principal passes are—the Chengam pass, by which South Arcot is reached from Shingaurapett; the Moroorputty Ghaut, which lies between the Shevaroys and the Toppoor Hills; the Toppoor and Mookanore Ghauts, through which traffic reaches Dharmapoory from the south-east and east; the Royacottah Pass, which gives access from Krishnagherry to the Balaghaut; the Munjavaudy and Cottaputty Passes, by which Ootancaray is accessible from Salem and Ahtoor respectively, on the south; the Anchatty Ghaut, almost impracticable, by which the Balaghaut portion of the Oossoor talook communicates with the valley of the Cauvery.

13. *Famine, Flood, &c.*—In May 1872, and again in May 1874, the district suffered from cyclones which, though they did not, owing to absence of cultivation in those months, do much damage to crops, caused terrible mortality among cattle, and breached several tanks. In the autumn of 1874, heavy floods occurred, notably in the Palaur and the basin between the Palaur and the Yelagherry Hills. Many tanks were breached, and much property was damaged. The railway line was carried away in several places, and a considerable portion of the town of Vaniyambaudy was swept away. In November 1880 a cyclone inflicted much damage at the time when cultivation was far advanced. The destruction of cultivation and irrigation works in the Ahtoor talook was particularly large. Blights are not uncommon in Salem, and locusts, caterpillars, and other insects devour the crops. Floods on a large scale are unknown. The Palaur, when in flood, occasionally causes loss to the river-side landholders; and breached tanks, especially when a chain of tanks give way together, cause damage, but more generally to property than to life. The severest famine of early years was that of 1833, when prices rose 71 per cent.; 1845-46 was a year of high prices, as also was 1857-58. In the famine of 1866, the following prices were reached between September and December :—Rice, Rupees 7 Annas 8 to Rupees 8 Annas 12 per cwt.; cholam Rupees 4 Annas 4 to Rupees 6 per cwt. Works and relief houses were provided by Government for the needy. But this and all previous famines on record are dwarfed by the terrible calamity of 1877-78. There had been signs and warnings by which this might have been foreseen. The north-east monsoon failed both in 1873 and 1874. In 1875, the north-east monsoon was almost a total failure, especially the latter part of it; and in 1876, the south-west and north-east monsoons, on both of which the district depends for its water supply, failed almost completely. The pinch began to be felt in October 1876, but people still hoped. By November, the failure of the monsoon became an established fact, grain dealers took alarm, and prices rose at a bound. In August 1877, inferior rice had risen to a rupee for 11 lbs., and other grains when procurable were nearly the same price: as in ordinary years the price is from 20 lbs. to 30 lbs. for a rupee, the keen distress may be realized. During the first thirteen months of famine the mortality was 180,000, the average death rate in other years being 50,000. It is estimated that altogether the district lost 10 per cent. of its population. Distress may be said to set in when normal prices are doubled, any rise beyond that rate involving famine. One result of the late famine has been, that attention was called to the neglected means of storing water. The Palaur and Cauvery might be utilized to a far greater extent than at present, and the Pennair carries untold wealth into the Bay of Bengal. In so far as the increased wealth of the population gives them more reserve to draw upon in time of scarcity, improved irrigation might do much for the district, but it cannot render certain a capricious rainfall, on which the majority of the tanks depend, and it cannot secure grass for cattle. The neglect of forestry is probably responsible for much. In the middle of the 16th century, the whole district was more or less a forest; now it is not easy in many places to find shade for a noon-day halt. Were it not for the railway, this last famine would probably have carried off half of the population, and as it was 204,590 perished from insufficient food, and the subsequent diseases consequent thereon.

14. *Medical.*—On the lower hill ranges, fever prevails for a great part of the year. Strangers, especially if they drink the water, are most liable to attack, though the anæmic faces and enlarged spleens of the acclimatized population show that they have by no means an immunity from the scourge. In the plains, during the rainy season large tracts are liable to a peculiarly weakening sort of fever, which in some years causes considerable mortality. The cause of this is not exactly known, as the fever does not always appear under given conditions, and occasionally one particular locality, noted for fever, may be free, while another, reputed for healthiness, may become the scene of an epidemic. Cholera rages through the district

at times. The virulence of the disease may be estimated from one example. In 1875 in the village of Canacamputty, in three days 52 died out of a population of 200. The deaths from cholera in 1875-76 were 15,487; in 1876-77, 45,162; and in 1877 from July to November, 8,002. The last outbreak in 1883 was attended with a loss of 5,015 lives. Small-pox has to a great extent been stamped out, though during the famine, when the population was peculiarly predisposed to disease, exceptional mortality occurred. Dengue was prevalent in the latter part of 1872. Leprosy is not common. Cattle-disease is rarely absent, rinderpest and foot-and-mouth disease being the most common forms.

15. *General Administration.*—The imperial revenue of the district for 1883-84 was Rupees 26,12,920, of which land revenue contributed Rupees 21,20,512. Excise came next with Rupees 3,03,876; and stamps, Rupees 1,62,711. The other items of receipt are small, the forests being credited with only Rupees 98,803. The total revenue in 1805-06 is returned at Rupees 19,17,860, of which the land yielded Rupees 18,23,480; in 1850-51; the total revenue was Rupees 19,66,930 and the land revenue, Rupees 17,75,350; in 1870-71, the total revenue was Rupees 30,20,910, and the land revenue Rupees 23,21,910. There are at present 35 magistrates' courts and 10 civil courts, including those of the revenue officers, covenanted and uncovenanted, empowered to hear rent suits. The number of covenanted officers is 5, including the Assistant Collector who has no separate charge. Exclusive of village watchmen, the district police in 1883-84 consisted of 2 officers, 18 inspectors and 1,032 constables, or 1 policeman to every 7·24 square miles and every 1,549 of the population. The cost of this force was Rupees 1,47,780, equal to about Anna 1 Pies 3 per head of the population. The value of their services as a preventive force, when compared with the old police organization (dating before 1858), may be gauged from the fact that in 1875 there were only two gang robberies in the district against 212 in 1858. There is also a special police which consisted at first of 1 inspector and 202 constables. This was raised to control the spirit of outrage which was evidenced by the Salem riots. It is not likely to be permanently retained. The district has 1 central and 17 subsidiary jails containing (in 1883-84) 5,113 prisoners, and costing Government Rupees 4,266 in the matter of feeding charges. The education of the masses is chiefly got at the pial schools, where elementary teaching is given after a time-honoured but unscientific fashion. In 1871, according to Census returns, there were only 190 schools in the district; but this cannot be supposed to include the pial schools. The Local Fund Act, passed in 1871, gave a stimulus to popular education by providing the funds for its extension; and in 1882-83 there were 511 schools, either belonging to Government or aided, which were attended by 9,368 pupils. Only 8·76 per cent. of the whole population could read and write in 1881, and of these only 3,948 were females. Regarding missionary effort, the field is divided between the London Mission, the French priests under the Vicar Apostolic of Pondicherry, and, to a small extent, the Lutheran Evangelistic Mission. The Roman Catholics outnumber the rest.

SHEVAROYS.

Description.—This is a hill-range in the Salem talook of the Salem district, situated between 11° 43′ and 11° 55′ N. lat., and between 78° 13′ and 78° 24′ 30″ E. long. The hills occupy a total base area of about 150 square miles, with a high plateau (Yercaud) on the southern portion of the eastern block of about 10 square miles, and plateaus (Pooliyoor and Nagalore) on east and west sides of the Green hills, which latter form the western portion of the Shevaroys and are nearly separated from the eastern portion by the valley of the Vanniar. Average elevation 4,500 feet; highest point in the Green hills, 5,410 feet above the sea. The population by the census of 1881 was 10,513. Three regular ghauts lead to the tablelands, except the last, which is neglected and in parts overgrown; these approaches are rideable and freely used by beasts of burden.—(1) The Salem ghaut, on the south, which commences at the 5th milestone from Salem, and is about 5½ miles long. This is the favourite ghaut, as coolies are more easily obtained. It is in some parts very steep. (2) The second is known as the Ahtoor ghaut, and commences at the Shevaroy hills railway station, the distance by it to Yercaud being about 11 miles. (3) The third is the Mallapooram ghaut on the north; the distance from the railway station of that name to Yercaud being about 19 miles. This ghaut is of easy gradient for the first 9 miles, but is very steep in its ascent to the Nagalore plateau. Besides these well-known ghauts the hills are accessible by foot-paths from many other points. The Shevaroys possess an equable climate, the rainfall is considerable, being an annual average of about 65 to 70 inches, which is double that of the rainfall over the surrounding plains, and the moisture of the air tolerably constant during the year. The thermometer in shade seldom stands below 65° F., and rarely rises above 75° F. in the hottest months. The principal localities on the Shevaroys are Yercaud, the Green hills, Nagalore, Pooliyoor, Pattipaudy, Maramungalam and the Talasholay Spur. The name "Shevaroy" is perhaps a corruption of "Sera-royan," a name connected with the ancient "Sera" or "Chera" Kingdom.

2. *Hill Tribes.*—The native inhabitants of the plateau and slopes consist of Vellalars or Malayalies. These people, according to their own traditions, originally emigrated from Conjeeveram about 600 years ago, on account of religious persecution. In features and physical appearance they differ scarcely at all from the inhabitants of the adjoining low country. They speak the same language (Tamul) somewhat corrupted. They are a timid, harmless people, addicted chiefly to pastoral and agricultural pursuits. Their villages resemble clusters of enlarged beehives, the houses being circular, and raised on wooden piles about two feet high. The walls are of split bamboo coated with mud. The roof is conical, and thatched with long coarse grass. In personal habits the Malayalies are dirty. They wear a black cumbly, or an ordinary cotton cloth. Their former mode of cultivation was Ponacaud or Coomry; it consisted in clearing and firing a piece of forest or jungle, after which the soil was turned up with a hand-hoe, and sown; the next year this land was abandoned for a fresh spot. This system however has been put a stop to by the Forest department, as it was extremely destructive. The ordinary diseases of the native inhabitants are small-pox, fever, and bowel-complaints, chiefly diarrhœa and dysentery. The number of Malayalies inhabiting the hills is not known, but they are supposed to be increasing, looking to the amount of revenue received from them.

3. *Archæology.*—Monumental remains are common, and consist of cairns or cromlechs, much resembling those found on the Neilgherries. The present inhabitants know nothing about them, and have no traditions relating to them.

4. *Flora and Fauna.*—The vegetation does not differ materially from that of other hill ranges of Southern India. The base of the hills is covered with the common forms of vegetation found in the adjoining low country. The middle region is noticeable from a zone of bamboo jungle, which ascends to a height of 3,000 feet, where it abruptly terminates; teak, blackwood, and sandalwood are also found. The soil and climate seem to be peculiarly adapted for gardening operations. Amongst imported plants which thrive readily may be mentioned the pear, loquot, peach, apple, guava, strawberry, plantain, citron, orange, lime, lemon, and Brazil cherry. The Australian acacias, eucalyptus, and the casuarina grow; the silk oak (Grevillea robusta) flourishes. Cinchona has been introduced, and is thriving. The coffee-plant was naturalized in these hills about forty years ago by Mr. Cockburn, late of the Madras Civil Service, and at the present time the total acreage taken up by planters is about 10,000, of which however only about one-half is planted. The number of coffee plantations is nearly 300. The tea-plant grows luxuriantly, though it has not yet been cultivated with a view to the manufacture of tea. Oranges are common, especially the Seville and sweet varieties. The lemon, lime, and shaddock succeed equally well. The most common animals are the leopard, bear, wild-hog, jungle-sheep, mouse-deer, hyæna, jackal, jungle-cat, hare, &c. Tigers are sometimes met with. A few bison exist on neighbouring hills (the Chittairies), but of late years have not been seen on the Shevaroys. Among birds may be mentioned the jungle and spur fowl, partridge, quail, wild pigeon, woodcock, and snipe. Cobras, vipers, scorpions and centipedes are seldom found.

5. *Revenue, &c.*—When the Shevaroys first began to attract notice forty years ago, the amount of kist derived from the whole of the hill villages was 350 rupees yearly. The entire revenue at the present time is upwards of 8,000 rupees per annum, and there is every prospect of this amount being greatly increased. The great present want is a cart road from Salem and the improvement of the interior roads. The revenue from coffee land is about 5,000 rupees, and from land under native cultivation 3,000. A small detachment of police from the Salem district is

stationed on the hills. There is a Deputy Tahsildar, and the Salem District Moonsif visits the place once in every three months to decide suits. There are European residents at Yercaud and visitors resort to the station for the hot weather and holidays; accommodation is scarce. There is a church, post office, dispensary, reading room, club and hotel.

6. *Medical.*—A malarious type of fever occasionally prevails on the Shevaroys, but it is not so bad as is usually supposed; and is chiefly confined to those planters and others, who live in, or visit, the jungles at the lower elevations. In 1824 two medical officers died of fever, and in consequence of this a prejudice was raised against the climate which it is difficult to overcome. The result of an examination of all the unhealthy years on record shows that there are no substantial grounds for this prejudice, and that the Shevaroys are not more unhealthy than any other of the higher hill-ranges in Southern India. It is not improbable that some forms of disease, which are aggravated by the climate of the Neilgherries, may be treated with benefit on the Shevaroys; such as rheumatism, chronic affections of the liver, bowels, air-passages, &c.

SHIVAGUNGA.

[*For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I.*]

SUNDOOR.

Description.—This is a Native State within the district of Bellary, lying between 14° 58′ and 15° 12′ N. lat., and between 76° 28′ and 76° 43′ E. long. Area, about 140 square miles, of which a large proportion is hill jungle. The State is bounded on the south by the Coodligy talook and on all other sides by the Hospett talook of Bellary district. The tract is elliptical in shape, stretching from north-west to south-east, and is almost entirely shut in by hills, which completely isolate it from the neighbouring country. The population of the State, according to the census of 1881, is 10,532; the annual revenue from all sources somewhat exceeding Rupees 40,000.

2. *Physical Geography.*—One chain of hills on the western limits of the State is known as the Sundoor range and from the north, the Timmappa Hills run down to form its eastern boundary. These are crossed by three principal passes. On the east, the Yettinhutty or Bheemagoondy ghaut connects the State with Bellary; on the south-west, through the Kanavihully pass, runs an excellent cart-road for through traffic. The Ramangoondy valley between the two main converging ranges is the northern entrance, and has a good road to Hospett. The other principal elevations are the Ramandroog, Comarasawmy and Combataravoo plateaux. All these attain an elevation of about 3,000 feet. The sides of the hills are in most places forest-clad, but indiscriminate felling and charcoal-burning have done much to keep down the more valuable timbers. Several streams water the State. These, for the most part, find outlet in the Sundoor river or Narihalla through the Yettinhutty gorge, and feed the Darojee tank in Hospett. On the hills, tigers, leopards, pigs, porcupines, bears, samber deer, and jungle sheep are found. The prevailing rock is a chloritic slate, often highly impregnated with oxide of iron, and crested in many places with mural ridges of ferruginous quartz rock, tinted with a variety of colours, from a steel-grey to a deep liverbrown. This rock often forms whole hills, always, however, overlying the slate. On the ranges generally, iron-ore is obtained. It is often of a rich quality, easily got at, and usually of a friable description. On Ramandroog, various coloured clays are procurable without difficulty. The prevailing soil in the valley is a rich heavy loam, interspersed here and there with patches of black cotton-soil. In various parts, lime is obtained near the surface, chiefly in nodular form. The ascent to the Comarasawmy pagoda passes over an extensive bed of lava conglomerate; and the same feature characterises part of the Ramandroog range.

3. *History.*—The founder of the Sundoor family was Mallojee Row Ghorepoora, an officer in the army of the Beejapore King, whose son Birojee entered the service of Sivajee. The State had been previously held by a Bedar Poligar, but Birojee's son Siddojee took Sundoor from the Bedars, and his conquest was confirmed to him and his heirs by Sumbhajee, the successor of Sivajee. Siddojee died in 1715, and was succeeded in Sundoor by his second son, Gopaul Row, whose fate is involved in obscurity. All that is known is, that Sundoor was taken by Hyder Ally some time after his capture of Gooty in 1779; that he began, and Tippoo completed, the fort; and that Gopaul Row's son, Siva Row, was killed in battle in 1785, in a vain attempt to recover his patrimony. In 1790, Siva Row's brother, Vencat Row, acting on behalf of his nephew Siddojee, expelled Tippoo's garrison, but did not attempt to occupy Sundoor till the fall of Seringapatam. The Peshwa then claimed the State as his own, and presented it to Jeswunt Row Ghorepoora, a distinguished officer of Scindia's army, who belonged to the same family as the former holders. Jeswunt Row did not enter into possession; and the widow of Siddojee, who died in 1796, adopted Siva Row, a son of Khandy Row, the younger brother of Jeswunt Row. The Peshwa made an unsuccessful attempt upon Sundoor in 1815; and at his request in 1817, the British Government, in conformity with the provisions of the treaty of Bassein, sent a force under Sir Thomas Munro to reduce it. In October of that year, the fort and State were surrendered. On Sir Thomas Munro's recommendation, Siva Row received as compensation a Jagheer of Rupees 10,000. In 1818, however, after the downfall of the Peshwa's Government, Siva Row was restored to his State; and in 1826, he received a sunnud from Government confirming the lands of Sundoor to him and his heirs free of any pecuniary demands. Siva Row was succeeded in 1840 by a nephew named Vencat Row, who died in 1861. His eldest son, Siva Shanmookha Row, being then a minor, did not receive the sunnud till 1863. On the 24th January 1876, Lord Northbrook, then Governor-General, conferred on him the title of Rajah, as a hereditary distinction to be assumed by his successors on formal recognition of their succession. Siva Shanmookha Row died in May 1878 and was succeeded by his half brother Ramchendra Vittala Row, the present Rajah to whom the sunnud was granted in February 1879. The Rajah has the entire management of the revenue and police of his State, and the duty of administering civil justice. In the administration of criminal justice, he is required to refer all cases calling for capital punishment for the orders of the Madras Government. The Collector of Bellary acts as Government Agent. The chief holds a sunnud conferring rights of adoption, granted by the British Government.

4. *Archæology.*—In the office of the Agent of the Rajah at Sundoor, is a copper-plate document evidencing the grant of land in inam to village carpenters, and the building of villages by a " Narapaty " king.

5. *Population.*—The population of the Sundoor State in 1865 was 12,962. At the Census of 1871 it was returned as 14,994; and the Madras Administration Report for 1877-78 gives the number as 14,999. It is probable that this estimate was considerably in excess of the actual population, as the census was taken a few days previous to the Comarasawmy festival, when there was a considerable floating population. The census of 1881 gives the then population as 10,532, and allowing for the loss caused by death and emigration during the recent famine of 1876-78 and the subsequent removal of the Military depôt from Ramandroog, this return may be assumed to be correct. In 1881, a dispensary maintained by the State was opened in Sundoor, which has proved of much benefit to the people in reducing the former high death-rate. Of the people 12,800, or nearly 86 per cent., are Hindoos; and 2,153, or 14 per cent., Mahomedans. Of a male working adult population of 4,849, nearly 70 per cent. (3,231) are cultivators and labourers. In caste and race, the people are identical with those of the surrounding district of Bellary. On the plateaux, there is a hill tribe of hunters, called Bedar, divided into two clans. They are a healthy and industrious people; and although possessing peculiar customs, they are undoubtedly Dravidians.

6. *Places of Interest.*—The two places of most interest in the State are the important sanatorium of Ramanamullay, or Ramandroog (for which see a separate notice) situated 3,150 feet above the sea, and used chiefly as a convalescent depôt for troops; and the temple of Comarasawmy. The latter is situated near the basin of a ravine, not far from the summit of the south-west part of the range of hills that enclose the valley, and after an ascent of 4 miles. The temple is neither large nor magnificent, but has an air of antiquity, of which its whitewashed exterior and gilded cupola cannot entirely divest it. The gopooram faces the east; on the left of the entrance is the shrine of the

goddess Parvaty, consort of Shiva; to the west is the image of her son Comarasawmy, the presiding genius of the place; and to the right stands the shrine of the destroyer Shiva. In front is a square pool called "Agastya Teerta." In front of the gopooram is a small octangular column of hewn stone, at the foot of which lie three trunkless stone heads. The largest is that of the giant Tarakasooran, slain by Comarasawmy. The great festival occurs twice in five years—viz., after two years and then after three. A shasanam in old Canarese is still preserved, which grants the endowment of the temple. It was given in 713 A.D. by a king of the Marala dynasty, named Bijjala Naick. The climate of Comarasawmy is described as very agreeable, although, owing to its easterly position, it is not so cool as that of Ramandroog.

7. *Revenue.*—The revenue of the State is about Rupees 40,000, of which 20,000 or thereabouts is derived from land rent. The land revenue includes grants of land to dependants and service lands; and in all, lands to the annual value of Rupees 12,500 are alienated. It has been the policy of the present Rajah to increase the security of the land tenures, and render them permanent. The ryots may cut wood for all agricultural purposes free of payment; nor are they liable to be charged for firewood which they themselves carry home. The poorer classes were permitted to cut firewood and grass in the jungles, and to sell it in the bazaar free of tax, but under recent regulations each head load of firewood brought for sale is subject to a tax of 3 pies. In 1882 an arrangement was entered into between the Rajah and the Government, according to which 40,000 acres of forest land were leased to the latter for 25 years at 4 annas per acre per annum, reserving to the Government the option of having the lease renewed on the same terms at the end of that period, and every succeeding period of 25 years. The present rainfall of Sundoor is about 36 inches per annum.

TANJORE.

Description.—This district lies between 9° 50′ and 11° 25′ N. lat., and between 78° 55′ and 79° 55′ E. long. The area is 3,654 square miles; the population, according to the census of 1881, 2,130,383. Tanjore forms a portion of the Southern Carnatic. It is bounded on the north by the river Coleroon, which separates it from Trichinopoly and South Arcot districts; on the east and south-east by the Bay of Bengal; on the south-west by Madura district; and on the west by Madura and Trichinopoly districts and by the State of Poodoocottah. The administrative head-quarters are at Tanjore city, situated on the south bank of the Cauvery.

2. *Physical Geography.*—Tanjore has a just claim to be considered the garden of Southern India. The vast delta of the Cauvery occupies the flat northern part of the district, which is highly cultivated with rice, dotted over with groves of cocoanut trees, and densely populated. This tract is thoroughly irrigated by an intricate network of channels connecting the different branches of the delta. The irrigation works will be described in a later section of this article. South-west of the town of Tanjore, the country is somewhat more elevated, especially about Vullam, where the Collector generally resides; but there is nothing that can be called a hill in the whole district. Along the coast, a belt of sand-drifts and low jungle protects the land from the sea; but between Point Calimere and Adiramputnam, a salt swamp extends over several square miles. No rock is prevalent in Tanjore except laterite, which is abundant in the high ground near the western frontier, and is again met with in the extreme south. Around Vullam are many beautiful specimens of rock-crystal. Along the southern coast a narrow and thin bed of sandstone, containing shells, was lately found running parallel with and about half a mile from the shore, and about 2 yards below the surface. This stone is compact enough to be used for building purposes. Extensive beds of marine shells, consisting of the large pearl oyster and other existing specimens, have been found in many excavations south of Negapatam, at the distance of 3 or 4 miles inland, and covered with several feet of alluvial soil; and in the south coast also are numerous specimens of this kind, of comparatively recent appearance. The delta contains some tracts of rich silt, and the immediate margin of the river is generally covered with a light loam; but for the most part the soil is naturally poor, and it is irrigation alone which makes the district so fertile. The varieties of soil in the higher ground beyond the delta are red loam, black cotton-soil, sandy light earth, and yellow clay much impregnated with soda, and miserably sterile. The coast line of the district extends for a distance of 140 miles; a heavy surf breaks incessantly on the shore, rendering communication with shipping very difficult and dangerous.

3. *History.*—The Tanjore country was under the Cholas during the whole course of their supremacy, and the history of the district is substantially that of the Chola dynasty. At present hardly anything is known of the Cholas prior to the end of the tenth or the beginning of the eleventh century, when there was a sudden and very material alteration in their condition, and when they rose to a position of great eminence. Prior to that their power was probably much circumscribed. They are mentioned as a nation by the Greek writers, their capital being in the second century A.D. at Warriore, near Trichinopoly. The capital was afterwards several times changed and was situated successively at Combaconam, Gungaycondasorapooram and Tanjore. The Mussalman invasion in A.D. 1310 by Malik Kaufoor dealt a severe blow to the Chola sovereignty. Whether or not this invasion should be considered as a conquest is a question which may be considered not conclusively settled; but it is a fact that from that time the Chola power speedily declined, and not many years later it was overshadowed by the rising power of Vijianugger. The period which ensued was a stormy one, witnessing a perpetual series of struggles between the legitimate sovereigns, the Wodeyar usurpers from the north (for which see the notice of South Arcot), adventurers of Vijianugger, and Mussalman chiefs. The Vijianugger sovereignty was not universally acknowledged till the sixteenth century. It is possible that this change was due to the cause to which it is ascribed by local tradition and manuscripts; namely, a quarrel between the Chola and Pandyan kings, which resulted in the latter sending to Vijianugger for aid. Veerasekhara is given as the name of the Chola, and Chundrasekhara as that of the Pandyan king. However this may be, it is clear that in the sixteenth century the Naick viceroys of Vijianugger obtained all real power in the south; for little or nothing is heard of the Cholas after that date. Nagama Naick and his son, Vishwanatha Naick, established themselves at Madura as independent chiefs; acknowledging, as did all his successors, the nominal sovereignty of Vijianugger. Tanjore was established as a separate viceroyalty and held by four successive Naick chiefs, Shivappa, Achyootappa, Ragoonatha, and Vijaya Raghaya. The tragic end of the latter is a well-known tradition amongst the native community. He was attacked by the Madura Naick and besieged in his own fort, and when he found further defence hopeless, he blew up his palace, rushed with his son into the midst of the enemy's troops, and was killed sword in hand. This was in 1674. One child was rescued, and he subsequently made an alliance with the Mussalmans, who despatched an army headed by the Mahratta, Yeckojee, to reduce Tanjore and place him in possession of his rights. They effected this, but in two years Yeckojee had ousted his protégé, proclaimed himself independent, and established a Mahratta dynasty which lasted till 1799. The British first came into contact with Tanjore by their expedition in 1749, with a view to the restoration of a deposed Rajah. The cession of Devicottah was promised as the reward of their aid. They failed in this attempt, and a subsequent expedition was bought off. Subsequently, the famous Mahomed Ally, Nawab of Arcot, was aided by the Madras Government in enforcing a claim for tribute against the Tanjore dynasty, and the fort fell into the hands of the invaders on the 16th September 1773. In 1775, it was restored to the Tanjore Prince, Toolsajee. Practically, until 1779 the Mahrattas held the Tanjore State, first as tributaries of the Moghul Empire, then of the Nawab of the Carnatic Payeen Ghaut, then as independent sovereigns and lastly, under the English East India Company, as assignees of the Nawab's tribute. During the latter end of the last century, Tanjore was in fact a protected State of the British Empire, paying its share of the subsidy for the army which the latter maintained for the defence of the country. It was ceded to the Company in absolute sovereignty by Rajah Sarbhojee, under treaty dated 25th October 1799. The territory thus acquired, with the undermentioned three small settlements on the coast, not included therein, constitutes the present district or collectorate of Tanjore. (1) Devicottah, a small territory adjoining the fort of that name, then estimated to yield a revenue of Rupees 31,500. This had been previously acquired by the Company from Rajah Prataup Sing by treaty in 1749. (2) The Dutch settlement at Negapatam, with the adjoining seaport of Nagore and the territory known as the Nagore dependency. Negapatam was one of the early settlements

of the Portuguese, from whom it was taken by the Dutch in 1660. The Nagore dependency was purchased by the latter, in 1773, from Rajah Toolsajee; but was immediately afterwards taken possession of by the Nawab of the Carnatic Payeen Ghaut, with the aid of the English, the Nawab reimbursing the Dutch the money they had paid for its purchase. It was, however, restored to the Rajah in 1776, together with the whole of his territory, which had been conquered by the Nawab in 1773; and the Rajah in 1778 granted it to the English. Negapatam was wrested by the English from the Dutch in 1781; and thus like Devicottah, this settlement was already in their possession at the time of the cession of the Tanjore principality. (3) Tranquebar settlement, yielding a revenue of Rupees 21,000, which the Danes acquired from the Naick Rajah of Tanjore in 1620, and which they continued to hold, subject to the payment of an annual peshcush or tribute of Rupees 3,110 until 1845, when it was purchased from them by the English East India Company. Under the treaty of 1799, the East India Company engaged to make over to the Rajah of Tanjore one-fifth of the net revenue of the territory which was transferred to them, with a further sum of 1 lakh (one hundred thousand) of Star pagodas, or Rupees 3,50,000. They also permitted him to retain possession of the fort of Tanjore, with a small territory within a radius of half a mile around it, together with certain villages and lands, in different parts of the district. Rajah Sarbhojee died in 1832, and was succeeded by his son Sivajee, who died in 1855, without legitimate male issue. Upon this, the Raj was declared extinct, and the rights and privileges appertaining to it ceased. Liberal provision having been made for the support of all relatives and dependants, the private property of the Rajah was left in the possession of the family. Until 1841, there was a Political Resident at Tanjore; but this office was amalgamated in that year with that of the Collector-Magistrate of the district. The head-quarters of this last-mentioned officer, however, remained at Negapatam, the seat of the old Dutch settlement, till 1845, when, upon Tranquebar coming into the possession of the East India Company by purchase, they were removed to that place. After the death of the last Rajah, when the fort and town of Tanjore became British territory, the head-quarters of the Collector, as also the seat of the chief court of civil and criminal judicature, then called the Civil and Sessions Court, were removed to Tanjore.

4. *Archæology.*—Few or no remains of the rude stone type, such as the dolmens and circles of the Coorumbar country, are to be found in the Tanjore district; and no relics of Booddhism have been discovered. Jeinism was at one period prevalent throughout the Chola country, and there are several remains showing the fact, though in all probability most were destroyed in the feuds that ensued between that religion and Sheiva Brahminism. Inscriptions are numerous. Large temples abound, and many of them are of early date. The Tanjore temple is of the eleventh century and remains in excellent preservation to the present day. It may reasonably be expected therefore that temples bridging the interval of four centuries between the architecture of the Seven Pagodas and that of Tanjore may be found amongst the villages of the district. If so, they are probably on the banks of the Coleroon and Cauvery. Negapatam is interesting from an archæological point of view. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population.*—The first census of the district was taken in 1822. Since then, seven others have been taken, all based on actual enumeration. According to the last census, that of 1881, the total population of the district was 2,130,383, of whom 1,026,528 are males and 1,103,855 females; proportion of males in total population, 48·2 per cent. There are 374,532 houses, each containing on an average 5·7 inmates. The average density of the population per square mile is 583. In the richly cultivated portions of the delta, the density is, of course, much higher, being as much as 1,031 per square mile in the Combaconam talook. Of the total population in 1881, 684,133 (or 32·11 per cent.) were under the age of 12. The great majority of the inhabitants—1,939,421, or 91·04 per cent. of the total population—are Hindoos. The Mahomedans number 112,058, or only 5·26 per cent.; whilst 78,258 (or 3·67 per cent.) are Christians, and 625 (or ·03 per cent.) are Jains. Of the Hindoos, the most important castes are Brahmins (134,584), Vellalars or agriculturists (372,409), and Vanniars or labourers (609,733). There are no traces of distinct aboriginal races; but there are no less than 297,921 Pariahs. Shatauny and Pandarams number 42,955. The ethnology of Tanjore differs from that of most other districts on the east coast of the peninsula only in the larger proportion of Brahmins in the upper grades of the population. The bulk of the population, as elsewhere in the south, consists of Dravidian Hindoos. All traces of the immigration of Aryans from Northern India have been lost in the depths of antiquity. Whether the pure Aryan element is preserved unalloyed in any of the numerous classes now included under the general head "Hindoos" or not, is quite an open question; though there can be no doubt that most of the classes which claim Aryan descent contain a large admixture of Dravidian blood. The Mahomedan population consists chiefly of Lubbays or Sonnagar, a mixed race sprung from the early colonists from Arabia, to whom the coast-line of Tanjore, as commanding a never-failing trade with Ceylon, held out special attractions. These colonists have in course of time found their way also into the interior, and have everywhere adopted the language of the country. The proportion of persons classed as Arabs, Pathauns, and Moghuls in the last census returns is hardly one-fifth of the aggregate Mahomedan population of the district; and even these figures are probably excessive. The Eurasian inhabitants of the district are chiefly of Portuguese and Dutch extraction. There is a constant flow of labourers from this district to Ceylon; and to some extent also to Burmah, the Straits Settlements, the French West Indies, and Mauritius. The emigrants are almost invariably Pariahs and other low castes. They generally return home with considerable savings out of the wages they earn in the colonies. During the year 1883-84, the number of such emigrants to the Straits Settlements, Martinique and Guadaloupe was 2,219. Tanjore district was the scene of the earliest labour of Protestant missionaries in India. In 1706, the German missionaries Ziegenbalg and Plütschau established a Lutheran mission in the Danish Settlement of Tranquebar, under the patronage of King Frederic IV of Denmark; and in 1841, their establishments were taken over by the Leipzig Evangelical Lutheran Mission, which subsequently extended its operations into the district. The mission at Tanjore was founded in 1778 by the Rev. C. F. Schwartz of the Tranquebar Mission, who some time previously had transferred his services to the Society for Promoting Christian Knowledge. The mission establishments at Tanjore were taken over in 1826 by the Society for the Propagation of the Gospel, which subsequently founded mission establishments in several parts of the district. The total number of native Protestants belonging to the various societies (Church of England, Lutheran, and Wesleyan) in the district in 1881, was 8,255; which is larger than in any other district in the Presidency, except Tinnevelly and Madura. Roman Catholic Missions in Tanjore date from the first half of the 17th century. Their churches and chapels are scattered over the whole district; but their principal seats are Negapatam, Velangauny (on the coast, 6 miles south of Negapatam), Tanjore, Vullam, and Combaconam. The St. Joseph's College which was founded in 1846 by the French Jesuits at Negapatam was removed to Trichinopoly in 1883. The present total number of native Roman Catholics in the district is 65,745. Fifteen towns in Tanjore contain 5,000 inhabitants and upwards. Of these, the five following are municipalities:—Tanjore city, 54,745; Combaconam, 50,098; Mayavaram, 23,044; Negapatam, 53,855; Munnargoody, 19,409. Of all the Madras districts, Tanjore is the most thickly populated, and contains the smallest proportion of uncultivated land. Before rice was imported from Bengal and Burmah, Tanjore was the only source on which Ceylon depended for its supplies of food; and even now the balance of trade is greatly in its favor. There are more than 3,000 Hindoo temples in the district. Many of the larger ones are splendid structures, and possess extensive endowments in land; the great temple at Tanjore city is said to be the finest in India. During the annual temple festivals, large fairs are held in different parts of the district. The principal Hindoo festivals are held at Combaconam; and here, too, is celebrated the famous Mahamagam, a festival occurring once in twelve years, to which crowds flock from all parts of the country. The Mahomedan festival called Candoory, held annually at Nagore, and a Roman Catholic festival (Nativity of the Virgin), celebrated every year in September at Velangauny near Negapatam, are also worthy of notice.

6. *Agriculture.*—Rice is the staple crop of the district, and is raised almost entirely by artificial irrigation. It is grown chiefly in the delta of the Cauvery; and to a much smaller extent in the upland portion of the district, under tanks fed by the local rainfall. The rice grown in Tanjore consists chiefly of two species, viz., car and pishanam, each including minor varieties. A few coarser sorts are sown broadcast; but this mode of cultivation is very limited, being carried on only in a few places beyond the delta, and

there on rain-fed land. In all cases of irrigated cultivation, young plants are raised in seed-beds and transplanted. The car is planted in June and reaped in October. The pishanam is planted in July and August and reaped in January and February. Dry crops are cultivated to a small extent in this district. They are chiefly (1) varagoo (Panicum miliaceum), (2) kelvaragoo or raggy (Eleusine coracana), (3) cumboo (Penicillaria spicata), and (4) toovaray or doll (Cajanus Indicus). Varagoo and doll are grown chiefly at the western end of the upland portion of the district. These crops are sown in July and cut in February. Raggy and cumboo are cultivated in small patches both in and beyond the delta. In the delta, these crops are raised either on high lands which are not irrigable, or as an auxiliary crop on rice-fields. In the latter case, they are sown either before or after rice. They are three months in the ground, being generally sown in June and cut in September. Green crops are common in Tanjore, and are grown chiefly in backyards of houses and on river margins. The green crops generally raised are onions, radishes, sweet-potatoes, and the various kinds of greens, of which the most prized are coriander and fenugreek. The only fibres cultivated in the district are two kinds of so-called Indian hemp (Crotalaria juncea and Hibiscus cannabinus), which are grown to a very limited extent on high lands. A very small quantity of cotton is also grown. Plantain and betel-vine gardens abound in the delta, where sugar-cane and tobacco are also cultivated. Tobacco is generally restricted to backyards of houses and margins of rivers. The only part where it is grown to any considerable extent is the sandy tract at the south-eastern end of the district near Point Calimere, where it is a remunerative crop and a principal article of trade. The tobacco consists of broad thick leaves, and is prized for its strength and pungency. It is used only for chewing, and is chiefly exported to the Straits Settlements and Travancore. Cocoanut palms and mango trees are abundant all over the district, except in the south-west, where, owing to the dryness and the laterite soil, few trees flourish. Of the total area of Tanjore district—in the local records put at 2,392,117 acres—about 55 per cent., or 1,306,713 acres, are actually under the plough: 17 per cent., or 402,958 acres, are cultivable, but not cultivated (including land left fallow); and 28 per cent., or 682,446 acres, are uncultivable, or reserved for purposes other than agricultural. Of the cultivated area, 1,231,944 acres, or more than 94 per cent., are under food-grains; and of these, 914,719 acres are irrigated rice lands. In the four deltaic talooks of Combaconam, Mayavaram, Shiyally, and Nunnilam, there is a considerably larger proportion, both of land actually cultivated and of land devoted to food-grains. The prevailing system of revenue administration in Tanjore is ryotwarry. The general average of the Government assessment for the district is, for irrigated lands, Rupees 4 Annas 14 per acre, for unirrigated lands, Rupee 1 Annas 4 per acre. The average net profit per acre of the ryotwarry holder is estimated at Rupees 9 Annas 10 for irrigated lands, and Rupees 2 Annas 7 Pies 4 for unirrigated lands. Wages of agricultural labour are almost invariably paid in grain. The ordinary rates are $\frac{3}{4}$ of a mercal, or 3·87 lb., of paddy (giving about $2\frac{1}{4}$ lb. of clean rice) per diem for a trained labourer, male or female, and $\frac{1}{2}$ mercal for inferior adult labourers; boys and girls receive half these rates. In towns, wages are paid in money, the ordinary daily rate for an adult male being Annas 4-$4\frac{3}{16}$ in 1841-42 to Rupee 1 Annas 13 in 1876-77, for children Anna 1 each. Skilled labourers, such as bricklayers, stone-masons, carpenters, and smiths, are paid according to the nature of the work and the degree of skill required, from Annas 5 to Annas 8 a day. The money wages in all cases above mentioned are now generally twice as high as they were twenty-five years ago, and in some cases the increase is still greater. Prices of all articles of food have risen during this period in about the same ratio. The village sales of paddy, the staple produce of the district, on which the original commutation rate for the assessment of irrigated land was calculated, show that the average price of the Tanjore cullum, equal to 12 mercals or 62 lb., has varied from Annas 7 in 1850-51 to Rupee 1 Annas 7 in 1875-76. Landless labourers constitute about one-half of the adult male population of the district, and of these nearly two-thirds are engaged in agriculture. They are chiefly Pullars and Pariahs, who are permanently attached to farms. The remainder are low-caste Shoodras, who have immigrated from time to time from the Maravar country, lying between the Cauvery delta and Cape Comorin. They go by the general name of Terkattiyans or "southerners." In the delta, the alluvium deposited by the river freshes, as a rule, constitutes the only manure. In the upland portion of the district, as also in those lands in the delta which are irrigated from the tail-ends of channels, and therefore lack this element of fertility, manure is required and used. The mode of manuring generally adopted is by folding sheep or cattle, the latter being more generally employed. Vegetable mould, cow-dung, ashes and other refuse of cook-rooms, and night-soil, are also used. On the whole, the average cost incurred for manuring may be put down as from Rupee 1 to Rupee 1 Annas 8 an acre.

7. The great natural advantages of irrigation which Tanjore possesses had been more or less improved upon many centuries before the district became British territory. The Coleroon, which forms the northern boundary of Tanjore, is, from its low level, utilized but to a small extent. The main branch of the Cauvery enters Tanjore district about 8 miles east of Trichinopoly, and spreading out into innumerable small channels, which form a vast network extending down to the sea, converts the northern portion of the district, commonly known as the Cauvery delta, into one huge rice-field. Near the western limit of Tanjore, the two main streams come into close contact with each other; and at this point, where the bed of the Coleroon is 9 or 10 feet lower, stands (across a natural outlet of the Cauvery channel) the ancient native work, a masonry dam, known as "The Grand Anicut," which prevents the waters of the Cauvery branch being wholly drawn off into the Coleroon. This work, which has been justly called the "bulwark of the fertility of Tanjore," is traditionally believed to have been constructed by a king of the Chola dynasty in the 3rd century A.D. There are grounds however for conjecturing that it dates not later than the 12th century. It originally consisted of a solid mass of rough stone, 1,080 feet in length, 40 to 60 in breadth, and 15 to 18 in depth, stretching across the whole width of the outlet in a serpentine form; and in the year 1830, it was provided by Captain Caldwell of the Engineers with under-sluices, to allow of the escape of sand. In the early part of this century, however, it was discovered that the Coleroon branch, from its more rapid fall and more direct course to the sea, was drawing off an unduly large share of water, while the Cauvery branch was deteriorating by the formation of deposits at its head. This defect was removed by the construction across the Coleroon branch, in 1836, of a masonry dam known as the "Upper Anicut," which has associated the name of Sir Arthur Cotton, of the Madras Engineers, with the agricultural prosperity of Tanjore. This work was followed by the construction of a regulating dam across the Cauvery branch in 1845, to counteract the effects of the Coleroon anicut, which, it was found, was throwing into the Cauvery branch a body of water far larger than could be allowed to enter it with safety to Tanjore. The Coleroon dam, 750 yards long, is divided by two small islands in its bed into three parts, of which the one at the northern end is 7 feet 4 inches, and the other two parts 5 feet 4 inches high. Its thickness throughout is 6 feet, and it is provided with sluices for the escape of sand. The Cauvery regulating dam, 650 yards in length, is divided into three portions, of which the central has its crown on a level with the river bed; while the one on either side is raised from 12 to 18 inches above it. By these two works, the body of water which enters Tanjore district has been brought under complete control. Almost simultaneously with the Coleroon dam, was carried out, as supplementary to it, another work on the Coleroon, about 70 miles lower down, known as the Lower Anicut. The obstruction of a large portion of the water which the Coleroon was drawing off would, as a necessary consequence, have lowered its surface level, thereby depriving of their irrigation the lands which depended on it in the district of South Arcot; the primary object, therefore, of the Lower Anicut was to ensure irrigation to these lands. But advantage was taken at the same time to provide a supply of water from the Coleroon for the north-eastern portion of Tanjore, which was either beyond the influence, or was indifferently supplied by the tail-ends, of the Cauvery channels. Accordingly, the spot where an island divides the Coleroon into two branches was selected. A dam, with suitable vents for the passage of boats as well as the escape of sand, was constructed across each branch, and a channel was taken off from each, one for South Arcot, under the designation of North Rajan vycaul, and the other for Tanjore, called South Rajan vycaul. While, however, the main source has been thus regulated and brought under control, the plan of internal distribution, in connection with this vast deltaic system of irrigation, has not yet been perfected. During the period of more than thirty years which has elapsed since the system of head-works was completed, considerable improvements have doubtless been effected in the way of providing regulating dams at the bifurcation of the several main branches of

the Cauvery, as well as head-sluices for minor channels, and calingulas or waste weirs for surplus vents; but much remains to be done towards a complete utilization of the available supply of water, as well as the perfection of drainage arrangements in their detail. The aggregate area irrigated in Tanjore district excluding the zemindarries for which we have no figures, from all sources is about 965,878 acres, of which about 869,658 acres are irrigated from river channels, and about 96,220 acres from tanks. Cultivation under tanks, which are almost wholy rain-fed, is restricted to the upland portion of the district, there being neither space to spare for reservoirs, nor ordinarily any need for them in the delta, where the river channels keep flowing during the whole of the cultivating season. The total land revenue of the district, including miscellaneous items and jody or quit-rent on inams (lands held on revenue-free tenure) for the year 1882-83, was Rupees 43,78,690, of which Rupees 38,70,578 was obtained more or less directly from irrigation. These figures include every item, and also the deductions for the remuneration of village establishments. Tanjore is more than ordinarily favoured by nature with regard to immunity from the calamities alike of flood and drought. The high ridges of sand which skirt its coast line form an effective protection against ordinary storm waves; while the level of the country, which slopes towards the east, ensures the free drainage of the surplus water of the Cauvery as well as of local rainfall, which is rarely very heavy.

8. *Forestry.*—Beyond a few isolated detached hills, this district is quite flat. There are vast quantities of scrub jungle scattered over most of the talooks, and at Point Calimere there is a large piece of natural forest about nine square miles in extent. The principal trees in this jungle are naga (Eugenia Jambolana), neem (Melia indica), poonga (Pongamia glabra), palay (Mimusops indica), with much Sapindus emarginatus scattered about. Careful conservancy will do much towards improving these forests. The palmyra is a common tree. Bamboos grow plentifully in some parts. The timber requirements of the people are principally met from outside the district, fuel being obtained in the scattered jungles above referred to. There are 700 acres of plantation, principally casuarina, though there are two plantations of vengay (Pterocarpus marsupium) in Tanjore talook. There are also numerous mango and cocoanut topes. Forest work has only just been commenced in the district. Before very long it is hoped the revenue may have much improved. The division is at present under the charge of a Sub-Assistant Conservator of Forests, whose head-quarters are at Tanjore; but it has been decided to reduce the establishment.

9. *Commerce and Trade.*—This district is amply provided with means of communication. It is traversed by two branches of the South Indian Railway, the one from Trichinopoly crossing the district to Negapatam on the coast, and the other (Madras branch) branching off from this line at Tanjore city and running in a north-easterly direction. During the year 1883, 3,606,040 passengers and 286,698 tons of goods were forwarded from and received at stations within the district. The amount realized from passengers and goods was Rupees 18,48,183. Including the cross lines of internal communication, but excluding the innumerable village tracts, the district contains 90 roads aggregating nearly 1,233 miles in length, most of which are provided with substantial masonry bridges over the rivers by which they are intersected, as well as culverts for smaller channels. There is only one navigation canal in use, running 32 miles along the coast from Negapatam to Vedaranyam in the south. It is used almost exclusively for the carriage of salt, which is produced in abundance at Vedaranyam. The manufactures for which Tanjore district is celebrated, are metal wares, silk cloths, carpets, and pith-work. The chief articles of import are cotton piece-goods, twist and yarn, and metals from Europe, and timber and betel-nuts from the Straits Settlements and Ceylon. Rice is by far the most important article of export, alike by sea and land. By sea, it is exported almost wholly to Ceylon; inland, to Trichinopoly, Madura, and Salem. The total value of the imports by sea in 1883-84 was Rupees 41,18,087, in which piece-goods accounted for Rupees 6,79,058, and betel-nuts for Rupees 15,39,759. During the same year, the exports by sea amounted in value to Rupees 76,79,511, the grain and pulse alone being valued at Rupees 40,74,874. The rate of interest generally charged in small transactions, where jewels or other valuable articles are given in pawn as security, is from 6 to 12 per cent. per annum; in all other cases, it varies from 12 to 24 per cent. In large transactions, money is rarely lent otherwise than upon the security of landed or house property, and the rate of interest varies from 6 to 12 per cent.; the maximum being demanded, however, only in rare cases.

10. *Medical.*—The rainfall, as elsewhere on the Coromandel coast, varies considerably from year to year. The south-west monsoon sets in in June, and continues more or less till September; but the rain falls at only long intervals, and but rarely for two hours continuously. The total fall during this monsoon averages 15 inches. The north-east monsoon sets in in October or November, and continues more or less till January. The rains during this part of the year are more continuous and, on the whole, more copious, averaging 25 inches. These averages are taken for the last ten years. The mean annual rainfall observed at 10 stations in the district for four years was 47·14 inches, with an average of sixty-four rainy days in the year. The district enjoys some rain in nearly every month. But it is heaviest from August to December inclusive, and lightest in March. In the last three months of the year, the average fall is about 25 inches. The hottest season of the year is from March to May. After this period, the freshes in the rivers, and the occasional showers of the south-west monsoon, tend to keep the atmosphere to some extent cool. The mean annual temperature for 1875 was 81·9° F., varying from a maximum of 103·9° in May to a minimum of 64·2° in January. Storms and cyclones are of frequent occurrence on the coast; but Palk's Bay, which bounds the district on the south, affords protection to the shipping during bad weather. None of the diseases prevalent in this district can be regarded as endemic. Formerly, elephantiasis was commonly met with in the city of Tanjore, whence it latterly extended to Combaconam. It existed also at Negapatam on the coast, but with improved sanitation it has now to a considerable extent disappeared. The diseases most common are fevers, small-pox, and cholera, all more or less epidemic. Cholera was particularly fatal in 1854 and 1875; it commences generally about the close of the north-east monsoon in January, and continues throughout the following hot season. There are 37 dispensaries in the district. Of these, 5 situated in the municipalities, 7 connected with chuttrams, one at Tranquebar, one at Shiyally, one at Tirootoraypoondy, and one at Puttoocottah, afford relief to both in-door and out-door patients, and the remaining 21 are for out-patients only.

11. *General Administration.*—Tanjore district, as constituted at its last re-arrangement in 1860, is administered by a Magistrate-Collector, a Sub-Collector, 2 Assistant Collectors, and 2 Uncovenanted Deputy Collectors, with the ordinary medical, fiscal, and constabulary establishments. The district is divided into 9 talooks, over each of which is a tahsildar, assisted by one or more deputies; and these 9 talooks are formed into 5 divisions, each under the charge of the Sub-Collector or one of the Assistant or Deputy Collectors—the Collector himself having no direct executive charge, but exercising a general supervision. For judicial purposes, the district is divided into North and South Tanjore. The judicial establishment of North Tanjore for civil causes consists of 6 Moonsifs and 1 Sub-Judge, all subject to the controlling authority of the North Tanjore District Judge, who is also Sessions Judge on the criminal side, hearing all criminal cases not triable by the Magistracy (with or without a jury, according to the nature of the case), and all appeals from the highest class of Magistrates. Similarly, in South Tanjore, there are 7 Moonsifs and 2 Sub-Judges, subject to the South Tanjore District Judge. The total district revenue in 1882-83 was Rupees 73,38,373 equal to an average of Rupees 3 Annas 7 Pie 1 per head on a population of 2,130,383. In 1883, the regular police force amounted to 1,394 officers and men, maintained at a cost of Rupees 1,94,577. These figures show 1 policeman to every 2·6 square miles of area and every 1,528 inhabitants; the cost of maintenance was at the rate of Rupees 53 Annas 4 per square mile, or Anna 1 Pies 5 per head of population. There are two jails in the district, one at Tanjore city, the other at Tranquebar. The former had in 1882 a daily average of 130·12 prisoners; 497 prisoners were admitted during the year, of whom 42 were females; the average cost per head was Rupees 71 Annas 9 Pies 3; and the average earnings of each inmate employed on manufactures was Rupees 4. In the Tranquebar jail, there was in the same year a daily average of 111·77 prisoners; 312 prisoners were admitted during the year, of whom 20 were females; the average cost per head was Rupees 84 Annas 9 Pies 11, and the average earnings of each inmate employed on manufactures was Rupees 4. There are about 700 chuttrams or native charity-houses in the district, in some of which, food is distributed gratuitously to all travellers. The educational machinery consists of 3 colleges and 605 schools of various grades. The three colleges are the

Government Provincial College at Combaconam, the S.P.G. Collegiate School at Tanjore city, and St. Joseph's Jesuit College at Negapatam; 6 of the schools are of the higher class and affiliated to colleges; 61 (including 3 girls' schools) are middle and lower class Government schools, 66 (including 14 girls' schools) belong to missionary societies, and 472 are private village and town schools.

TINNEVELLY.

Description.—This district lies between 8° 9′ and 9° 56′ N. lat., and between 77° 16′ and 78° 27′ E. long. Area, 5,381 square miles; population in 1881, 1,699,747 souls. Tinnevelly occupies the extreme southern and eastern part of the Indian peninsula. Madura district bounds it on the north and north-east; on the south-east and south the Gulf of Manaar; and on the west the Southern Ghauts form natural boundaries. The Ghauts divide it from the Native State of Travancore. The coast-line extends from Vembaur nearly to Cape Comorin (the most southern point of India), 95 miles. The greatest length of the district is, from north to south, 122 miles; and the greatest breadth, from east to west, 74 miles.

2. *Physical Geography.*—Roughly speaking, Tinnevelly is a large plain (of an average elevation of 200 feet) sloping to the east, as may be inferred from the general direction of its rivers. It is, in fact, made up of their drainage basins. Along the western boundary, the mountains rise from the plain to a height of above 4,000 feet; but they send out no spurs running into the district, nor are there any isolated hills, and the face of the country is but slightly undulating. The total area of the mountains and elevated tracts is 626 square miles, of which the Southern Ghauts occupy 582. The elevation of the land at the foot of the Ghauts is about 800 feet. The area of the forests is 286 square miles. The greater portion of which is fully stocked with evergreen forests, and has been specially reserved. There are 34 rivers, all of which run their whole course within the district. The chief are—(1) The Tambrapurny (length 80 miles), which rises in the Southern Ghauts, forming a beautiful waterfall at Paupanausam as it leaves the hills. Its course is on the whole east-south-east, and its name comes from the red or copper colour which it gets from the soil through which it passes. Its principal tributary is the Chittaur or Chitranuddy ('little river') which rises above Courtallam. The Tambrapurny passes between the towns of Tinnevelly and Palamcottah, which are two-and-a-half miles apart. (2) The Veippaur. Shautore is the chief town on its banks. In the north, the scenery is unattractive. There are but few trees, and the soil is nearly all black cotton soil. To the south, red sandy soil prevails, in which little save the palmyra palm will grow. In fact, Tinnevelly is the palmyra district, as it is the district of the Shaunars, who live by the palmyra. But along the banks of the rivers, rice-fields and a variety of trees and crops render the country more pleasing. The coast has but few villages, and is low and level. There are many shoals near the shore, and numerous rocks and reefs in the north-east. Along the coast are many salt marshes, divided by sand dunes from the sea, with which they have no communication. In the rainy season, these marshes spread over a wide expanse of country. After heavy rain in 1810, four of them became united, and much damage was done to cultivation by the salt stagnant water. The district has not yet been surveyed geologically. The hills which divide it from Travancore are chiefly granite and gneiss, and along the coast stretches the broad belt of alluvium common to the whole east coast of India. There are several veins of calc spar crossing the district from west to east, and the beds of all the rivers are more or less encrusted with a deposit of lime. In the black cotton soil, nodular limestone is very abundant, and below it a bed of gneiss in a partially disintegrated state occurs.

3. *History.*—Tinnevelly is specially interesting as the seat of the earliest Dravidian civilisation. According to Tamul tradition, Chera, Chola, and Pandya were three royal brothers, who at first lived and ruled in common at Korkay, on the Tambrapurny. Eventually a separation took place; Pandya remaining at home while Chera and Chola founded kingdoms of their own in the north and west. The earliest Dravidian civilisation was that of the Tamulians of the Pandya kingdom, and the first place where they erected a city and established a State was Korkay, on the Tambrapurny river. This civilisation was without doubt indigenous in its origin, but it may have been indebted for its rapid development to the influence of a succession of small colonies of Aryans, chiefly Brahmins from Upper India. The leader of the first or most influential Brahminical colony is said to have been the famous rishy Agastya. He is believed by native piety to be still alive, and to reside on the conical mountain, commonly called "Agastya's Hill," from which the Tambrapurny takes its rise. The age of Agastya was prior to the era of the Greek traders. Agastya is according to Brahmins the founder of the Tamul language. The first capital of the Pandyas was Korkay, above named; the second, and more celebrated, was Madura. Korkay is the Κόλχοι ἐμπόριον of Ptolemy (130 A.D.), and of the author of the Periplus (80 A.D.), both of whom speak of it as the head-quarters of the pearl-fishery, and belonging to the Pandyan king. This place is now about 3 miles inland. After the sea had retired from Korkay, in consequence of the silt deposited by the river, a new emporium arose on the coast, which was much celebrated during the Middle Ages. This was Cauyal, described by Marco Polo. Cauyal in turn became too far from the sea for the convenience of trade, and Tuticorin was raised instead, by the Portuguese, from the position of a small fishing village to that of the most important port on the Southern Coromandel coast. A flourishing direct trade was carried on from Cauyal with China and Arabia, by Arabs and others. The Pandyans remained in possession of the district from the earliest historical times till about the year A.D. 1064, when it was conquered by Rajendra Chola, who assumed the name of Sundara Pandyan. Little further is known till the Mahomedan inroad of A.D. 1310 or 1311, which was followed by a Pandyan restoration. Virtually there would seem to have ensued an almost complete state of anarchy for 250 years; Mahomedan adventurers, Canarese or Teloogoo Naiacks, and the Pandyan legitimists contending for the sovereignty. About the year A.D. 1559 the Naiacks, who were generals of the Vijianugger State, finally established the strong Naick dynasty of Madura, which, after the fall of the Vijianugger kingdom in A.D. 1565, became practically an independent family of sovereigns, acknowledging however the expatriated princes of the Vijianugger family as their chiefs. When the Portuguese arrived at Cauyal, they found the King of Quilon residing there. The prince referred to would now be called King of Travancore; and it is clear, from inscriptions, that the kingdom of Travancore sometimes included a portion of Tinnevelly. The power of the Portuguese along the coast lasted till the 17th century, when they were expelled by the Dutch, who set up a factory at Tuticorin. On the decay of the Pandyan kingdom, Tinnevelly fell as abovesaid under the Naicks of Madura. About 1744, Tinnevelly became nominally subject to the Nawab of Arcot; but it was really divided between a number of independent chiefs (called Poligars), who had forts in the hills or dense jungle with which the district was covered. Some collectors of revenue contrived to elude the immediate control of the Mahomedans, and gradually established themselves as independent. The other Poligars were the representatives of the feudal chieftains of the old Madura kingdom. All were made to pay tribute according to the power of the Nawab's government to enforce it. All exercised criminal and civil jurisdiction, and were continually at war with their neighbours, or in revolt against the State. Tinnevelly used to be farmed out by the Nawab at a low rent; but even this generally ruined the renters, partly because of the resistance of the Poligars, and partly because of the mismanagement and tyranny of the renters themselves. The Poligars kept about 30,000 peons, a rabble of ill-armed and ill-drilled soldiers, which secured their independence. Up to 1781, the history of the district is a confused tale of anarchy and bloodshed. In 1756, Mahomed Yoosuf Khan was sent by the Nawab of Arcot to settle the two countries of Madura and Tinnevelly. He gave Tinnevelly in farm to a Hindoo at Rupees 11,00,000 a year, and invested him with civil and criminal jurisdiction. Mahomed Yoosuf Khan was recalled from the south in 1758, and the country immediately relapsed into its previous state of anarchy. He returned in 1759, and undertook himself the farm of Madura and Tinnevelly. He ruled till 1763; but as he could not or would not pay his tribute, an army was sent against him by the Nawab, and he was captured at Madura and hanged. In 1781, the Nawab of Arcot assigned the revenues of the district to the East India Company, whose officers then undertook the internal administration of affairs. In 1782, the strongholds of Choccamputty and Panchaulamcoorichy were reduced by Colonel Fullarton, who also subdued some refractory Poligars. However, to the end of the century some of the Poligars exercised civil and criminal jurisdiction in their territories. They rebelled in 1799, when the war with Tippoo had withdrawn our troops from the south, and were therefore disarmed, and their forts destroyed; but another rising took place in 1801. This was put down, and in the same year the whole Carnatic, including Tinnevelly, was finally

ceded to the English. Since that time there has been no historical event worth notice.

4. *Archæology.*—Who the earliest inhabitants of Tinnevelly were is not known. Their relics (mostly of sepulchral rites) are found in considerable profusion along the main rivers, especially along the course of the Tambrapurny. Very probably the earliest inhabitants were the owners of the stone implements that are found near Shermadevy and Poothoocoody, urn funerals belonging to a later date. The contents of the urns show a considerable advance in civilization, especially in the matter of iron weapons. The urn-burials are mostly confined to this district and the extreme south of the peninsula. They prove the existence of a race whose habit was to bury their dead in earthen urns varying in size from a foot to six feet in height. The skulls and bones are often found in almost perfect preservation, placed in the urn in a sitting or bent posture; or, when the urns are small, still more forcibly fitted to its size. There are three principal places in the district where these sepulchral urns are found, viz., at Shermadevy, Aditchanalloor (12 miles east of Palamcottah), and Nullamullay (8 miles west of Tuticorin), and at all these places the soil consists of quartz gravel with rock occasionally cropping out. The burial places are on ground slightly above the level of the surrounding country, and in two of the three cases a water-course runs along the base of the hillock on which the pots are found. The pots themselves are found at different depths, some being visible on the surface, while others are buried as much as 5 feet below the present ground level. They appear also to be buried in tiers as the slope of the ground renders necessary. The contents of the pots, when examined, has been found to consist of earth, stones, and small pots of various shapes, with occasionally iron implements; but in some cases beads and bronze ornaments have been found. At Courtallam several large urns closely imbedded in stones has been dug up. Each urn was surrounded by a chamber of unhewn stones. In the urns were remains of bones, iron weapons, and clay, with some small earthen chatties of superior workmanship. The inhabitants of the south are almost all demon-worshippers. Serpent-worship however also abounds in every village, and Nagaculls are to be seen everywhere. On the Valavanaud Hill a living cobra is worshipped with oblations of milk. Inscriptions are to be found in almost every town and village, especially in the valley of the Tambrapurny. Veeraculls also are common. Old coins are numerous, and amongst them Venetian ducats are often found. The Cooloovar, Coottaudies, and Vedans appear to be the relics of some of the ancient aboriginal tribes of the plains, while the Malaiyarasar and Malaipulliyar represent those of the hills. Canarese and Teloogoo villages, peopled by the descendants of immigrants from the north in the times of the Naiacks, exist in several localities. The rock-cut temples and Jeina inscriptions at Kaloogoomullay in the district are noteworthy. Korkay has remarkable historical associations, as above mentioned. Indeed the district, as the seat of Dravidian civilization, possesses more antiquarian interest than any other part of the Presidency.

5. *Population.*—According to the Census of 1881, the population numbered 1,699,747 persons in 1,497 inhabited villages, and 366,597 houses. Per square mile—persons, 315 (the Madras average is 221); villages, &c., ·278; houses, 68. Persons per village, 1,135·4; per house, 4·6. There were 514 females to 486 males in every 1,000. Religious divisions—Hindoos, 87 per cent.; Christians, 8 per cent.; Mahomedans, 5 per cent. There are only 691 Europeans and Eurasians. Hindoos numbered 1,468,977 in 1881, of whom Brahmins constituted 4·03 per cent.; agricultural castes (Vellalar, Vanniar, Shaunar), 63·0 per cent.; Pariahs, 8·43 per cent. The most interesting castes are the Shaunar and the Paravar. The latter are all Catholics. The Shaunar are a low caste, living solely by the cultivation of the palmyra palm. They claim (perhaps with justice) to be the original lords of the soil. Christian missions have been especially successful among them. Devil-worship is common, especially among the Shaunar. Tinnevelly has been less influenced by pure Hindooism than other districts and some Brahmins have even taken up the local devil-worship. At Shreeveicoontam is a curious sub-division of the Vellala caste, the Cottay Vellalar ("Fort Vellalar"), who live in a mud inclosure or fort so-called, out of which their women are not allowed to go. The three most celebrated Hindoo shrines are at Trichendore on the sea-coast, at Paupanausam on the Tambrapurny, and at Courtallam on its tributary the Chittaur. At both the two latter places there are beautiful waterfalls at the foot of the hills. Courtallam is also known as Tenkausy, i.e., the Southern Benares. The scenery is very beautiful. The Christians were thus sub-divided in 1881—Catholics, 58,080; Protestants, 82,866; total 140,946. The history of the Catholic Church in Tinnevelly practically dates from the 16th century, though there are some traces of more ancient missions. It was on the Tinnevelly coast that St. Francis Xavier, in 1542, after a short stay at Goa, began his work as Apostle of the Indies. The Paravar, then as now a fishing caste, had received Portuguese protection against the Mahomedans, who oppressed them, and many of them had become Christians. St. Francis completed the work, and since then all the Paravar have called themselves his children. They are sprêad along the coasts of Tinnevelly, Madura, and Ceylon. Tuticorin is their chief town. In 1549 was martyred at Poonnacauyal, Father Antonio Criminale, the proto-martyr of the Society of Jesus. Many of the letters of St. Francis Xavier were written from Tuticorin and other places in the neighbourhood. For some time the missions were confined to the coast. The famous Jesuit mission of Madura was founded by Father Robert de Nobili (an Italian) in 1607, and soon extended itself into Tinnevelly. The letters of the Jesuits from 1609 to 1780 are almost the only materials for the history of Madura and Tinnevelly during much of this time. John de Britto (martyred in Madura, 1693) laboured at times in Tinnevelly, and Father Beschi (the great Tamul scholar, ob. about 1746) lived some time at Cayataur. Christianity prospered in Tinnevelly, in spite of all difficulties; but its progress was arrested by events in Europe. In 1759, Portugal suppressed the Society of Jesus in its dominions, and imprisoned all its members. The Jesuits on the Eastern missions were on various pretexts brought within reach of Portuguese officials. They were summoned to Goa and other places, and there seized and imprisoned. Those who remained in the missions were deprived of all aid, communication with Europe was rendered difficult, and the supply of priests cut off. The general suppression of the Society of Jesus in 1773, the French Revolution in 1789, and other European troubles, still further injured the missions. Till 1837, Tinnevelly had only a few priests from Goa, and in the absence of priests the number of Catholics declined. In 1837, Tinnevelly with other districts was entrusted to French Jesuits, and since that time the mission has made steady progress. In 1851 there were 23,351 Catholics; in 1881 there were 58,080. Everything had to be created—churches, schools, &c. At first, owing to their small number, the priests were overworked; bad food, exposure, and other sufferings due to extreme poverty, caused the death of many, especially from cholera. In 1846, the Vicariate-Apostolic of Madura (of which Tinnevelly forms a part) was erected. At present (1884) there are in the district 18 priests of the Society of Jesus (11 Europeans and 7 natives), under the jurisdiction of the Vicar-Apostolic, and 2 secular priests, under the jurisdiction of the Archbishop of Goa. There are about 59 churches and 96 chapels, 48 boys' schools and 6 girls' schools, with 2,070 boys and 412 girls. There are three native nunneries, one at Tuticorin, one at Palamcottah and one at Adeikalapooram. There are two boys' orphanage and one female. Protestant missionaries first visited Tinnevelly towards the end of the last century. The Lutheran Schwartz seems to have been here in 1770, and a few years later one of his converts built a small church at Palamcottah. In 1785 he had 100 converts at that place. The district was visited periodically from Tanjore (200 miles) by native Lutheran ministers. In 1792 there were several distinct congregations. Jænicke worked with success from 1792 to 1800, and after him Gericke baptized many persons. The East India Company's chaplain at Palamcottah (J. Hough) in 1816 infused new life into the mission. At that time it numbered 3,000 souls, and for ten years it had not been visited by a European missionary. Two Lutheran ministers (Rhenius, a man of great ability, and Schmid) were sent out by the Church Missionary Society in 1820; and under them converts increased to 11,186 in 1835. In 1826 the missions in Tinnevelly of the Society for Promoting Christian Knowledge were handed over to the Society for the Propagation of the Gospel, and since that time the latter society and the Church Missionary have divided the district between them. At least two-thirds of their converts are Shaunars. In 1851 the number of Protestants was 35,552; in 1871 it was 49,796. In 1877 two missionaries, one from each society, were consecrated Bishop's assistant to the Bishop of Madras, viz., Dr. E. Sargent, of the Church Missionary Society, and Dr. R. Caldwell, the distinguished Orientalist. During the late famine the number of converts greatly increased. The following are the latest (1884) statistics of the two societies:—European and Eurasian missionaries, 5; native clergymen, 66; schoolmasters and other paid agents, 691; schools, 481; school-boys, 11,464; school-girls, 2,815; Christians, 82,866 according to census of 1881. The small number of Europeans employed is very noticeable. The progress as regards self-ruling and self-supporting churches is more and more encouraging year by year. Some of the native clergymen are already maintained by their flocks, and a system of church councils has been organized. The greater part of the Mahomedans in Tinnevelly are descended from the ancient Arab traders and their converts. They are found along the whole coast of the Tamul country, and are called by the English "Lubbays." Here, as elsewhere, they are chiefly employed in fishing

and seafaring pursuits. Madura and Tinnevelly are the districts which supply Ceylon with labourers for the coffee plantations, &c. Ordinarily, three-fourths of these return to India in a year or two. The rest remain permanently in Ceylon. During the famine of 1877, a very large number went to Ceylon, and the demand for labour fell off. Hence in 1878-79 there were 40,435 immigrants, and only 34,083 emigrants from Tinnevelly. Tinnevelly has a larger number (39) of towns with over 5,000 inhabitants than any other Madras district except Malabar. The most important are Tinnevelly, Palamcottah, Tuticorin, and Shreevillipoottore. The district contains many ancient and magnificent buildings, e.g., the temple in Tinnevelly town, a rock temple at Kaloogoomullay (with some of the oldest Tamul inscriptions known), also several Jain images (a colossal one now kept in the Madras Museum), &c. But the most interesting antiquities are the large sepulchral earthen pots of prehistoric races, which have been found at several places. These contain bones, pottery of all sorts, beads and bronze ornaments, iron weapons and implements, &c.

6. *Agriculture.*—Tinnevelly is a fertile district, and ordinarily enjoys good seasons. Out of a total of 5,381 square miles, 1,403 are uncultivable waste, 1,178 uncultivated, and 2,800 actually under cultivation. In 1882-83, 1,463,595 acres were under cereals, chiefly rice, grown along the well cultivated and highly productive river valleys, 222,639; spiked millet or cumboo (Panicum spicatum), 441,331; pulses, 43,754 acres. There are 6,352 acres of plantains, being more than in any other Madras district, except Tanjore. Tobacco occupies 2,922 acres; coffee (lately introduced on the slopes of the hills), 2,402 acres; chillies, 7,053 acres; oil-seeds, 116,912 acres, of which 100,887 are occupied by gingelly, an amount only exceeded in Madras by Godavery alone. Cotton (grown in the drier parts), 343,342 acres. Tinnevelly is one of the four great cotton districts of Madras. The palmyra palm flourishes in the almost rainless tracts of red sandy soil to the south. The Shaunars live by making coarse sugar (jaggery) from its juice. There are about 200,000 acres of irrigated land, producing a revenue of about £165,000. The Shreeveicoontam anicut system is important. The anicut crosses the Tambrapurny river about 16 miles from its mouth, and is the lowest weir on the river. 32,000 acres of land are under its cultivation. There are about 2,157 tanks, and about 131 weirs (some very large and very ancient) across rivers, &c. 61·6 per cent. of the people are on Government or ryotwarry lands (2,964 square miles), 29·9 on permanently-settled estates of zemindars, &c. (1,446 square miles); and 8·5 on inam villages, i.e., permanently alienated as civil or religious endowments (424 square miles). There are 19 zemindars and 46 mittahdars. The chief is the Zemindar of Yettiyapooram, who pays a peshcush of Rupees 88,352 a year. Some of these zemindars represent the ancient Poligars. In 1883-84, the average rates of wages were—for unskilled labour in towns, 2 annas 10 pies, and in villages, 2 annas 4 pies a day. The price of rice in the same year was 3 rupees 12 annas 11 pies per maund of 80 lb., and of cumboo (the staple food of the district), 1 rupee 9 annas 2 pies.

7. *Forestry.*—This is for various reasons a very important forest division. The total area of forest is roughly estimated at about 1,500 square miles in extent. The Western Ghauts forming the western boundary of this district form a magnificent range rising to a great elevation, and are well covered with forest containing splendid trees, many of them of great value. There is much evergreen forest in the higher ranges containing, among other valuable varieties, Nang, Mesua ferrea, Canarium indicum, Vitex altissima, &c. On the slopes of the hills at lower elevation many varieties of deciduous trees are found, all more or less useful, and some of the more valuable kinds as teak, blackwood, vengay, Anogeissus latifolia, Terminalia tomentosa, and also Eugenia Jambolana, Careya arborea, Buchanania latifolia, Dillenia Erythrina, &c. There are numerous low-lying hills and stretches of forest in the plains. The hills are all more or less covered with jungle excepting those in the neighbourhood of Paupanausam and Courtallam, which are very bare. Several zemindars in the district are the owners of forest land of considerable extent. The minor products consist principally of cardamoms, honey, wax, gallnuts, gum and resin, barks, tamarind, and other fruits, &c. The forest produce is worked out of the forest on the permit system, and the revenue is more or less dependent on this. Forest work has been carried on in this district for a number of years, and much progress has been made. Several large areas in the ghauts, about 280 square miles in extent, have been finally constituted reserved forests. Demarcation is going on and boundary lines are being cut. A large number of plantations covering a considerable area which were formed under the old jungle conservancy, have now all been transferred to the management of the Forest Department. The division is under the charge of a Deputy Conservator of Forests, and is divided into two ranges, northern and southern. The northern range comprises the talooks of Shreevillipoottore, Shunkaraneinarcoil and Tenkausy with Shreevillipoottore as sub-range. Ambasamoodram and Nangoonairy talooks constitute the southern range, each talook in this range being also a sub-range with a forester in charge.

8. *Commerce and Trade.*—Tuticorin is, of the four sanctioned ports, the only one of importance. The exports are cotton, coffee, jaggery, chillies, &c. Sheep, horses, cows, and poultry are also sent to Ceylon. Tinnevelly has 3 per cent. of the total value of the Madras trade. In 1883-84 the value of the imports was Rupees 40,64,385; and of the exports, Rupees 1,36,40,091. More than half of the imports were from, and nearly all the exports were to, foreign countries. The vessels engaged in foreign trade were 564, and in coasting trade, 186. The number of boats in 1883-84 was 602. There is a considerable inland trade with Travancore. The coast is interesting on account of the pearl and chunk (shell) fisheries, both of which are Government monopolies. The pearl-fishery is very ancient (see above, History). It is mentioned by Pliny (A.D. 130), by Mahomed Ben Mansoor in the 12th, and by Marco Polo in the 13th century. The Indian coast of the Gulf of Manaar (from Cape Comorin to Paumben) was called "the coast of the fishery," i.e., pearl-fishery, a name which it retained in the letters of the Jesuits up to 1780. The Venetian traveller Cæsar Frederic (1563—81) describes the fishery in a way which applies to the present day. Then, as now, the divers were all Catholics (Paravar). At one time the Dutch obtained from the King of Madura a monopoly of the pearl and chunk fisheries on the Tinnevelly coast, and derived a large revenue from licenses to fish. The colour of the pearls of the Gulf of Manaar is not good. This is perhaps due to the practice of letting the oyster putrefy before it is opened. The English first entered on the pearl-fishery in 1796, since which time a total sum of nearly Rupees 12,00,000 has been realized at a cost of not more than Rupees 6,000 a year. In 1822, the pearl-fishery produced a revenue of Rupees 1,30,000; in 1830, Rupees 1,00,000. Between 1830 and 1861 there were no fisheries, as the bed seemed exhausted. This has been ascribed to currents produced by the deepening of the Paumben channel. In 1861 and 1862 the fisheries realized Rupees 3,78,580. Since then, all hope of profitable fisheries has been abandoned. A small steamer and a yacht are kept as a guard establishment. The chunk or conch shells are found all along the coast, and from time immemorial have been sent to Bengal and elsewhere. Formerly the fishery was under Government management, afterwards it was leased for a term of years. From 1861 to 1876, licenses were granted, which yielded Rupees 4,800 to Rupees 6,000 a year. Since 1876 the fishery has again been taken under Government management. In 1882-83, the profit was Rupees 22,040. The divers were paid Rupees 25 for a thousand shells, and the price got by Government was Rupees 116 for each thousand of good shells. The aggregate length of roads in Tinnevelly district is 1,169 miles. The principal road is that which connects Madura, Palamcottah, and Travancore. It enters the district near Viroothooputty, and leaves it near the "Aramboly lines," a total length of 107 miles. There are also some important roads connecting the cotton districts with Tuticorin. There are no canals in the district. The total length of railway is 95 miles, all parts of the South Indian Railway, the main line of which enters the district 5 miles north of Viroothooputty and runs to Tuticorin (77 miles). There is a branch line to Tinnevelly (18 miles). There are 11 railway stations. The railway is of much importance, connecting as it does the port of Tuticorin with the cotton districts, with Madura, &c. It was opened December 1875, on the occasion of the Prince of Wales' visit. During the famine of 1877-78, much rice was brought by sea to Tuticorin, and conveyed into Madura district. Besides the railway telegraph offices at every station, Government telegraph offices are open at Tuticorin and Palamcottah. The Bank of Madras has a branch at Tuticorin. Since 1859, there has been a Government district printing-press, where the District Gazette is printed in English and Tamul (the prevailing language of the district). In 1883-84, there were eight private presses, one of them belonging to the Church Missionary Society.

9. *Famine, Flood, &c.*—During the drought of 1877, Tinnevelly suffered comparatively little. The greatest number of persons in receipt of relief in any week was 24,117, in September. In 1878, the south-west monsoon also was unfavourable, and the north-east monsoon excessive. Much damage was done by two unparalleled floods in the Tambrapurny, which laid waste much country, and in many villages what escaped the excessive rain was quite destroyed by locusts. The native Christians suffered least

during the famine, and the Mussalmans much less than the Hindoos.

10. *Medical.*—Tinnevelly, lying immediately under the Southern Ghauts, receives very little of the rainfall of the south-west monsoon, though parts of it are watered by streams which rise in the hills. The rainfall on the hills dividing Tinnevelly from Travancore is probably 200 inches a year. Throughout the district, the average rainfall is only 24·79 inches. The climate in the north is very similar to that of Madura, but there is a considerable difference towards the centre, and along the fertile banks of the Tambrapurny. The northern monsoon seldom reaches these quarters before the end of November, and generally is not so heavy as in the Central Carnatic. In common seasons, the rains are over about the end of December. This district has one peculiarity of climate, which is, that a fall of rain is always expected late in January, sufficient to raise the rivers and replenish the tanks. The mean temperature of Tinnevelly town is 85° F. During December and January, the temperature falls under 70° at night. The hottest month is April. Courtallam is the sanitarium of the district. Tinnevelly is not reckoned unhealthy. In 1883-84, the percentage of deaths from cholera was 22·7. The fever mortality averages only 3·5 per thousand. The registered deaths in 1883-84 showed a death-rate of 27·4 per thousand. In 1883-84 there were 23 dispensaries, 4 of which treat each from 100 to 250 in-patients and 16 from 4,000 to 13,000 out-patients a year. In 1883-84, the Government vaccinators vaccinated 38,011 persons. The objection which the Lubbays had to vaccination on religious grounds is vanishing away.

11. *General Administration.*—In the last century, Tinnevelly was supposed to yield Rupees 11,00,000 a year to the Nawab of Arcot. So little was known of the district and its resources at the end of the last century, that, according to Colonel Fullarton, the Supreme Government of Bengal actually despatched Mr. Deighton to negotiate its transfer to the Dutch, in return for the temporary services of a thousand mercenaries. Before the negotiations could be entered on, war had broken out between the Dutch and English, and thus one of the most valuable and interesting districts belonging to the British Government was saved. In 1850, the total revenue was Rupees 26,15,800 (land, Rupees 20,24,600). Between 1873-74 and 1875-76 (ordinary years), the land revenue averaged Rupees 29,41,230. In 1876-77 (famine year), the total revenue was Rupees 41,61,540 (land, Rupees 24,23,630). In 1877-78 (also affected by famine), the total revenue was Rupees 42,70,400 (land, Rupees 23,65,450). In 1883-84, the total revenue was Rupees 48,36,794 (i.e., Rupees 2 Annas 13 Pies 6 a head, the Madras average being Rupees 2 Annas 7 Pies 7). Land revenue yielded Rupees 29,06,703 (Rupee 1 Annas 11 Pies 4 a head, Madras average being Rupee 1 Annas 9 Pies 3); excise, Rupees 1,18,984; assessed taxes, Rupees 10,767; sea customs, Rupees 18,558; salt, Rupees 14,57,000 (there are 7 salt factories); stamps, Rupees 3,24,778. The total cost of all officials and police was Rupees 6,65,154. The ryotwarry system was finally established in 1820, since which time there has been a periodical revision of rates, as elsewhere in Madras, where this system prevails. The present settlement expires in 1906-7. For 1883-84, 2,392 square miles were assessed at Rupees 26,73,047, being an average of Rupee 1 Annas 11 Pies 11 an acre. The zemindarries were permanently settled under a regulation of 1802, and a special commission (1858—70) regulated the question of inam or rent-free lands. For revenue purposes, the district is divided into 9 talooks in 4 groups:—(1) Under the Assistant or Temporary Deputy Collector at Palamcottah (talook, Tinnevelly); (2) under the Sub-Collector, Tuticorin (talooks, Ottapidauram, Tenkaray); (3) under the Head Assistant Collector, Shermadevy (talooks, Nangoonairy, Ambasamoodram, Tenkausy); (4) under the General Deputy Collector, Shreevillipoottore (talooks, Shreevillipoottore, Shautore, Shunkaraneinarcoil). All the above officials have criminal jurisdiction in their groups, and have under them 17 sub-magistrates, 9 of whom are the tahsildars in charge of talooks. The District and Sessions Judge has civil and criminal powers, with his court at Cocciracoolam. Subordinate to him are 5 district moonsifs, with civil powers. The heads of villages deal with petty crime, and try civil suits for sums up to Rupees 20. The police staff consists (1883-84) of 1 Superintendent and 1 Assistant Superintendent, 21 subordinates, and 908 constables. The total cost was Rupees 1,34,472. The district jail at Palamcottah had in 1883-84 a daily average of 185 prisoners. There are also 16 subsidiary jails, which had a daily average of 40 prisoners. Palamcottah, which was garrisoned by a Native infantry regiment has ceased to be military station since 1881. In 1882-83, the number of schools connected with the Educational Department was 1,756, with 50,877 pupils, i.e., 1 pupil to every 33 of the population. This proportion is exceeded by Madras alone. There are 138 girls' schools in Tinnevelly. According to the census of 1881, the following could read and write:—Of Hindoos, 10·6 per cent.; of Mahomedans, 12·7; of Christians, 19·7; of others, 4·4; total, 11·4. Thus the Christians stand high in the list of the instructed. There are no Government schools. All the schools are private (belonging to missions or otherwise): many are aided from Provincial, Municipal, or Local funds; others are not aided, though under Government inspection. There are 3 municipal towns—Tinnevelly, Palamcottah, and Tuticorin. For the administration of Local funds, the district was divided into 2 circles—Tinnevelly (6 talooks) and Shermadevy (3 talooks), but now these circles were amalgamated into one.

TRAVANCORE.

Description.—This (the southern portion of the ancient division of Kerala) is a Native State; situated between 8° 4′ and 10° 22′ N. lat., and between 76° 12′ and 77° 38′ E. long. It is bounded on the north by the Native State of Cochin and the British District of Coimbatore; on the east by the British Districts of Madura and Tinnevelly; on the south and west by the Indian Ocean. The extreme length of Travancore from north to south is 174 miles, its extreme breadth 75 miles; area, 6,730 square miles; population (1881), 2,401,158 souls. The State is in subsidiary alliance with the British Government, to which it pays a tribute of Rupees 8,00,000 a year. It is divided for administrative purposes into 31 talooks. Trivandrum is the chief town and the residence of the Maharajah.

2. *Physical Geography.*—Travancore is one of the most picturesque portions of Southern India. The mountains which separate it on the east from the British districts on the Coromandel coast, and which at some points rise to an elevation of 8,000 feet above the sea, are clothed with magnificent primeval forest; while the belt of flat country, to an average distance of about 10 miles inland from the sea, is covered with an almost unbroken mass of cocoanut and areca palms, which, in a great measure, constitute the wealth of the country. The whole surface is undulating, and presents a series of hills and valleys, traversed from east to west by many rivers, the floods of which, arrested by the peculiar action of the Arabian Sea on the coast, spread themselves out into numerous lakes or lagoons, connected here and there by artificial canals, and forming an inland line of smooth water communication which extends nearly the whole length of the coast, and is of the utmost value when the sea itself is closed for navigation during the monsoon. Nunjenaud, with its numerous villages, palmyra groves, and extensive swamps of rice, resembles in some respects the neighbouring district of Tinnevelly, except that, unlike Tinnevelly, it is nowhere sterile. Northward, this fertile plain is succeeded by the wooded and rugged surface of the Malayalam country. The rich and variegated tract along the coast is finely contrasted with the mountainous wilds farther inland. The hill scenery has peculiar beauties, among which are the wild, rocky, and precipitous acclivities and fantastic forms of the mountains in the southern parts. Farther north, the mountain chain becomes less bold, a few rugged cliffs and conical summits alone breaking the sameness of its outline. The high range breaks into clusters of hills, and the valleys are studded with temples and churches. Indeed, the numerous houses and gardens, scattered thickly over the country, give it an appearance entirely different from that of the eastern coast. Manacoody, Colachel, Vilinjam, Poondoray, Anjengo, Quilon, Cauyancollam, Poracaud, and Alleppey are seaport towns, of which Alleppey, Quilon, and Colachel are by far the most important, the remainder being frequented only by small native craft. The hill region is so extensive, and so marked a feature of the State, that it merits special notice. The mountains are of every variety of elevation, climate, and vegetation. Some tracts are even now considered inaccessible, and very little has been accurately surveyed. Certain portions have been made over to European and native capitalists, by whom the natural fertility of the soil is being turned to the best account. Some of the loftier mountains are entirely detached, except near their bases, from the neighbouring heights; they often have a precipitous descent towards the west, and are connected on that side with a succession of low hills, which diminish in altitude as they approach the coast. From Quilon southward, these secondary ranges soften down into undulating slopes, intersected by glens and valleys, which grow wider as the elevation of the hills decreases, and are cultivated invariably with rice, proving very productive. Among the mountains a few rough elevated tablelands are found; but the alternation

of hill and valley is in most cases too rapid to allow of any large extent of level surface. The above remarks refer to the country west of the Periyaur river, between which and Dindigul rises a confused mass of hills. These have, however, similar characteristics; their summits, either broken into projecting cliffs, or thickly covered with trees, fall generally with precipitous abruptness, and present a variety of wild and magnificent forest scenery. These solitudes inclose some elevated plains (about one-twelfth of the whole area), which afford pasturage for cattle, and enjoy a good climate for a portion of the year. To the north, the mountains rise to an elevation of 8,000 feet, with plateaux over 7,000 feet. The more important of these is part of the group known as the Anamullays. The southernmost peak of note is the sacred Agasteshwaramullay, the source of the Tambrapurny river. The plateaux, by reason of their good climate, rich soil, abundant timber and water-supply, are likely to become better known as the demand for coffee land increases. One plateau alone (Eroovimullay or Hamilton's valley) is 6 miles long by 3 wide, and contains about 10,000 acres of excellent tea and coffee land. Similar smaller valleys are found in the group called Melmullay, or the Cannandevan Hills. At the head of the Travancore Hills stands Aneimoody (8,837 feet), the highest peak south of the Himalayas, and near it are several other peaks of 8,000 feet. South of this group is the lower region of the Cardamom Hills, so called from their special product. South of these, again, are large tracts of unsurveyed forest, which, with the exception of the Ashamboo coffee plantations, and one or two narrow strips near the main passes, continue to the Atchancoil river. Even south of this, although the hills become lower and narrower, the country is thinly inhabited almost to Cape Comorin. Numerous rivers run down from the ghauts, which flow by tortuous courses, with high banks and rocky beds, into the backwater; most of these are navigable only near the sea. The chief river of Travancore is the Periyaur, rising in the high ranges, which after a course of 142 miles enters the backwater at Codangalore; 60 miles of this river are navigable. The Pamba, and its tributary the Atchancoil and the Kallada are the next in importance. The Western Tambrapurny, or as it is locally known the Coolitoray river, rising in the mountains to the north of Mahendragherry, a sister river of the larger Tambrapurny which flows east into Tinnevelly, flows westward, like all other Travancore rivers. Numerous small streams cross the narrow plain between the mountains and the sea, but no large irrigation works exist on them, the plentiful rainfall making these unnecessary, except in the extreme south. Here on the Paraly and Koda there are anicuts constructed by Pandyan kings. A succession of lagoons or backwaters, connected by navigable canals, extends along the coast, from Trivandrum northwards, forming a most important means of communication. Its extreme length is nearly 200 miles, namely, from Chauvacaud to Trivandrum; between the latter place and Quilon, there rises a high promontory of land about 6 miles in breadth, the highest portions of which in two places have recently been tunnelled through to a length of over 3,000 feet and the remaining portion cut open into a canal, thus making the line of water communication complete. The total area of these lakes is 227⅓ square miles, of which 157½ are in Travancore, 53½ in Cochin, and 16½ in British territory. The largest lake is Vembanaud (east of Alleppey), but except during the monsoon, it is very shallow. A strip of land from 7 miles to about half a mile wide separates these backwaters from the sea. There are, however, several outlets, those at Chetwye, Codangalore, Cochin, Cauyancollam, Ivica, and Paravoor being the principal ones. Every kind of merchandise and a very large portion of the produce of the country is carried on these waters. There are also several good cart roads in the inland parts of the country for local traffic and for communication with Tinnevelly and Madura. The boats are of various sizes, and in most instances are formed of a single tree, the trunk of which is hollowed out. The ordinary size is about 20 feet by 2½ feet; the boats for carrying rice to a distance are larger, and have a deck or roof. Tampakam and anjaly trees are generally selected for boat-building, being durable and sufficiently large. There are no important mines. Iron is abundant. Alum, sulphur, lignite, and plumbago exist, but are not worked. The mountains and forests of Travancore afford some of the best sport to be got anywhere in India, especially in the shape of "large game." Elephants, whose ivory is a source of State revenue, are very numerous. Tigers, leopards (including the black variety), bears, bison, samber, or "elk," nilghye, and various kinds of deer abound.

3. *History*.—No authentic history of Travancore in early times is extant, but tradition states that the whole Malayalam coast was reclaimed from the sea by Parashoorama, and colonized by certain Brahmins, known as Numboories, whose rule, after lasting for a considerable time, terminated in 68 B.C. The Brahmins then elected Cshatriya chiefs to rule for periods of twelve years. This system of electing a new ruler every twelve years lasted for four centuries. The last and greatest of these rulers, Cherma Permaul (Deputy of the Chera kings), at his death divided his dominions among his subordinates, the eldest of them receiving the south portion, of which Tiroovancode (now a small village) was the capital. Upwards of three centuries are occupied by the reigns of the first twenty-three chiefs of this principality, who were continually at war with neighbouring chieftains. The twenty-fourth prince was Ravivarma Permaul (1684–1717 A.D.). His reign, and the reigns of his two immediate successors, were characterised by internal strife and oppression. Wanjee Martanda Permaul, who reigned from 1729 till 1746, conquered Ellayedatanaud in 1742, and Cauyancollam in 1745. Next came Wanjee Baula Permaul, who further extended his dominions; he had a considerable army, disciplined after the European model, and commanded by Portuguese, Dutch, and Italian officers. During the war with Tippoo of Mysore, from 1786 to 1792, Travancore was the steadfast ally of the British. Tippoo's invasion of Malabar alarmed the Rajah, and led to the agreement of 1788, by which the latter secured a subsidiary force of two battalions of the Company's army, at a cost of 1,755 pagodas (about Rupees 6,500) a month each, to be paid in cash or in pepper. This force had scarcely reached the islands of Vypeen, before Tippoo, claiming the forts of Ayacottah and Codangalore, which had recently been purchased by the Rajah of Travancore from the Dutch, invaded Travancore (1789), but was defeated with a loss of 2,000 men. In the following year, Tippoo renewed his attack, and was again repulsed. In 1795, the Company entered into a second treaty with Travancore, the principal provisions of which were the restoration to the Rajah of the three districts ceded by Tippoo in 1792 to the Company, and the payment in return of an annual subsidy equal to the expense of three battalions of sepoys with European artillery. The Rajah in turn bound himself not to enter into any engagements with European nations without the consent of the Company, nor to give them settlements in the country; also to assist the English, if necessary, with troops, the Company bearing the cost of such troops. Rajah Bala Rama Vurmah, with whom this treaty was concluded, died soon after, and was succeeded by his nephew, of same name. With the latter the treaty of 1805 was concluded, by which the Rajah, relieved from furnishing troops, was required to pay for a native regiment, in addition to a subsidy fixed in 1795, in all Rupees 8,00,000 a year, and further, to share the expense of a larger force when necessary; to pay at all times the utmost attention to the advice of the English Government; to hold no communication with any foreign State; and to admit no European foreigner into his service, or allow him to remain in his territory without the sanction of the Company. In 1809, the Rajah had allowed the subsidy to fall into arrears, and further refused to dismiss the useless and expensive establishment called the Carnatic Brigade. The Diwan being the cause of this, the English demanded his dismissal, whereupon 30,000 Nayars rose in rebellion and surrounded the subsidiary force; they were, however, subdued, the "Carnatic Brigade" was disbanded, and the expenses incurred by Government were paid by the Rajah. From this time Travancore has enjoyed unbroken peace. Rajah Rama Vurmah died in 1811, and was succeeded by Lutchmee Ranee, who confided the administration of the State to Colonel Munro, the British Resident. Lutchmee Ranee died in 1814, and her sister Parvaty Ranee was regent till Rama Vurmah, Lutchmee Ranee's eldest son, came of age. He reigned for seventeen years, and was succeeded by his younger brother, Martanda Vurmah, in 1846. His successor, Wanjee Bala Rama Vurmah, one of the sons of the only daughter of Lutchmee Ranee, ruled from 1860 till his death in 1880. The present Maharajah is his brother, Rama Vurmah, born 1837. In 1862, the Governor-General granted the Maharajah a sunnud authorizing the adoption of nieces to perpetuate the dynasty, as according to Malabar custom, the succession devolves on the eldest male member of the royal family in the female line.

4. *Population*.—By an enumeration made in 1816, the population was then shown to be 906,587; in 1836, it was 1,280,668; and in 1854, 1,262,647. A careful census was taken in 1875, the returns of which placed the population at 2,311,379. The population according to the results of the still later census taken in 1881 is 2,401,158, of whom 1,197,134 are males and 1,204,024 females. The present average density is 356·7 per square mile (ranging from 1,318 in Paravoor to 39 in Todoopoya). The average number of persons in one house is 4·57; the proportion of females to males is about 100·58 to 100. There is a considerable annual influx of coolies from Tinnevelly and Madura to the coffee gardens of Travancore. Hindoos number 1,755,610, or 73·12 per cent.; Mussalmans, 146,909, or 6·12 per cent.; and Christians, 498,542, or 20·76 per cent. Of the Hindoos, the Nayars number 464,239. The Mussalmans are chiefly descended from Hindoo converts of

Arab missionaries, and their language is Malayalam. The Native Christian population consists of 57·65 per cent. Syrians (partly Roman Catholics of the Syrian rite, and the rest Nestorians); Roman Catholics of the Latin rite, 30 per cent.; the remainder Protestants. The large Christian population is a distinctive feature of the country. The Syrian Christians date from the earliest centuries of our era; the Roman Catholics of the Latin rite are the result of the European missions of the Jesuits and Carmelites during the last 300 years. 80·69 per cent. of the population speak Malayalam, 18·31 per cent. Tamul. About 60 per cent. of the adult male population is agricultural, for the most part fairly well off. Of Shaunars and other similar castes, there are about half a million; as might be expected in a purely Hindoo State like Travancore, these castes have a very low status, and labour under many social disabilities. The chief towns of Travancore are—Trivandrum, the capital, with a population (1875) of 57,611; Alleppey, the commercial centre and chief seaport, pop. 29,918; Quilon, the military head-quarters, pop. 14,366; Shencottah, 9,752; Chertala, 9,228; Cottayam, 6,333; Koter, 7,338; Nagarcoil, 6,491; Varkalay, 6,502; Paravoor, 6,678; Colachel, 4,768. Besides these, there are 43 towns with over 2,000 inhabitants. Travancore shares with Malabar the Maroomakkatayam law, and its many peculiar customs, social and religious. Immigrants from other districts, as Tamuls, Teloogoos or Mahrattas, who have made Travancore their adopted country, retain their own customs and manners, but the Malayaly customs are well defined. Among the Numboories, the eldest son alone marries and inherits, the other children having no claim to the family estate or to a share of its produce. In contrast to the custom prevailing on the east coast, they allow their girls to remain unmarried to any age, and even to die unmarried. Among the Nayars, the girls are all married formally when children, but when they grow up they may choose men either of their own or the Brahmin caste, and live with them, the titular husband having no claim. The succession among the Nayars, as in Malabar, follows the line of sisters, and children by the sisters. A man without a sister or sister's daughter is without a legal heir, and must adopt one to perpetuate the family. The succession to the throne of Travancore is governed by the same law, though the Maharajah claims to be a Cshatriya. The children of a Nayar are therefore heirs to their maternal uncle, performing the religious rites at his decease, and succeeding to his estate. Numboories and Nayars are very cleanly and bathe several times daily. The Brahmins and the Nayars burn their dead. The burning in all cases takes place in some corner of their own gardens. The tuft of hair, which among the people on the east coast is worn on the back of the head, is here worn on the crown, and allowed to hang forward.

5. *Agriculture.*—Rice and the cocoanut palm are the chief sources of agricultural wealth. Next comes pepper, the vine of which grows round the stems of the jack and other trees. The areca nut palm is also very valuable; while the jack-tree is the mainstay of the poor, its fruit being used largely as food, and its timber for house-building. Within the last few years the cultivation of tapioca has so extended that it has also become a staple article of food. The rice produced is not of the finer varieties, except in Nunjenaud, and is not sufficient to meet local consumption. In the hills, the cardamom grows spontaneously, in the deep shade of the forest; it resembles somewhat the turmeric or ginger plant, but grows to a height of 6 to 10 feet, and throws out at the roots the long shoots which bear the cardamom pods. The owners of the gardens, early in the season, come up from the low country east of the ghauts, cut the brushwood and burn the creepers, and otherwise clear the soil for the growth of the plants as soon as the rains fall. They come back to gather the cardamoms when they ripen, about October or November. The whole crop is delivered to the officers appointed by the State, the value of the ryot's share being paid in money, according to the prices realized. It is an uncertain crop, being greatly dependent on the rains. Within the last twenty years coffee has been introduced. About 50,000 acres have been taken up, and at the latest report about 25,000 had been planted, of which about 14,000 were bearing. The favourite soil for coffee is generally from 2,000 to 3,000 feet above sea-level. This industry is now unfortunately on the decline. Cinchona and cocoa are being tried, and the cultivation of tea has met with fair success. Buffaloes and bullocks are used for ploughing, but the latter do not thrive, and indeed the domestic and agricultural animals of Travancore are inferior and ill-trained. Fowls, ducks, and turkeys are plentiful and cheap. The original land tenure of Travancore was identical with that of Malabar, viz., jenm, or hereditary right in fee simple, subject to no State demand. According to tradition, the Numboory Brahmins, by whom Kerala was colonized after its reclamation from the sea by Parashoorama, received a free gift of all the land. This tenure survives at the present day in Travancore only in respect of lands still held (without having changed hands by sale or mortgage, except within the caste) by the Numboory Brahmins, and in their own occupation. These are absolute freeholds. The largest jenmy is the Yedapully Chief, with a rent-roll of Rupees 40,000. Jenm lands cease, however, to be freeholds the moment the land passes into other than jenm hands for a money consideration. It then becomes liable to a light tax (rajabhogam) of about one-sixth of the full tax equivalent to one-half of the quantity of seed required to sow the land, while the ordinary tax on such land would average three times the seed. Much jenm land is now held by strangers on the kaunom tenure, practically a permanent lease. Jenm land thus alienated pays rent (often nominal) to the jenmy, and a land tax of varying amount to Government. Next to jenm are the ancient holdings of madambimaurs, Nayar landlords whose lands, though commonly called jenm, are not so, being subject to rajabhogam or light-tax. All land which has lost the attribute of jenm becomes Circar (Government) land. Jenm tenures forfeited for rebellion or escheated for want of heirs, lands reclaimed from the forest or the back-water, lands purchased for money, alluvial accretions, &c., also become Circar lands. Of Circar land tenures there are several varieties. Circar otty had its origin in financial necessities. The State borrowed money from the owner of assessed land, and made the interest payable by a deduction from the land-tax. Lands on this tenure are very valuable, and can be sold, &c., but at every alienation, the principal and interest of the original debt are reduced 25 per cent.; thus after a number of transfers the tenure ceases to be favourble, and the land begins to pay full rates. Anoobhogam (personal inam) is a tenure subject to a nearly nominal assessment; but, when sold absolutely, the tenure ceases, and the land is transferred to the head of, and dealt with as, otty. Oolliam or Vritty are simply service inams. Most of such lands are held by Nayars, who are bound to supply, at certain fixed prices, vegetables and provisions for the temples and Ootperas (feeding-houses), and to render sundry other services. When the service ceases to be rendered, the tenure also ceases. The earliest survey was made in 1772. No measurements of area were taken; the number of cocoanut, areca, and jack trees in each garden was counted, and the area of rice lands was roughly estimated from the seed required to sow each field. Even in later years, regular measurement has only been made in the case of new gardens or new ricefields brought under cultivation. The tax on gardens is paid on the number of trees—cocoanut, areca, &c. Thus cocoanut pays from Annas 2 Pies 6 to Annas 2 Pies 10 per tree; areca, an anna per tree; jack, Annas 2 Pies 10 per tree; palmyra, Anna 1 Pies 6 per tree, or less. Dry lands on which cereals are grown pay from Anna 1 Pies 6 to Annas 5 per acre. It is impossible to trace the data on which rice lands were assessed. North of Trivandrum, the average rate of tax was taken at about double the seed, the produce (meny) being seven and eightfold, and in the South Nunjenaud, where there is much irrigation, the rate is five times the seed (the produce being twelve to fifteenfold). The net assessment of rice land averages about Rupees 2 per acre. Wages have risen considerably during the past few years. The ordinary village labourer used to get only an anna to 1 anna 6 pies and one meal for a day's work. Now a man cannot be hired for less than between 3 and 4 annas and one meal, though his hours of work have diminished. The large demand for labourers on account of public works, and the increased cost of the necessaries of life are the main causes of this sudden rise in wages.

6. *Forestry.*—The lower hills contain much teak, poon (Sterculia fœtida), jack (Artocarpus hirsutus), black-wood (Dalbergia latifolia), ebony, palmyra (Borassus), and other valuable trees. Gamboge, gall-nuts, honey, wax, ivory, cardamoms, and pepper are among the numerous forest products. The finest teak is found in the Cardamom Hills, but except near the Periyaur and other large streams, it cannot be brought down from the higher ranges to the coast. Pasture is plentiful on the lower slopes, and some of the hillmen herd cattle. Their cultivation is confined to a little destructive coomry or jam. Passing to the higher ranges, the best wooded blocks of land are found near Devicoolam, Annakadane, and near Moonaur up to Parvaty Mullay; the slope of Aneimoody at the source of the Pamba is also well wooded, but here the Madavar have done much damage by cutting. The destruction of these forests has been partially stopped within the last few years; but in a large and rarely visited tract, it is not easy to entirely prohibit the old custom of clearing forests for the sake of a single crop. Much of the Neilgherry vegetation is found on these hills, and the rhododendron grows everywhere at an elevation of over 5,000 feet. The trees, though principally of soft growth, are of large scantling, considering the high elevation. At the lower elevation of 5,000 feet, the harder woods, such as white cedar, are found, but they are

not abundant. Some of the coomries, which have only had one crop taken off, seem to be recovering their original character of forest, but this is seldom the case. The Brazil-cherry is found, especially on the sites of old clearings.

7. *Commerce and Trade.*—The exports are chiefly dried cocoanut coir, cocoanuts (in shell), cocoanut oil, arecanut, dry ginger, pepper, salt-fish, timber, coffee, cardamoms, bees' wax, tamarind and palmyra jaggery. The imports are tobacco, English piece-goods, rice, thread, cotton, and copper. The value of exports in 1882-83 was Rupees 77,03,446, and of imports, Rupees 48,93,796. Owing to the excellent inland water communication afforded by the backwater, Travancore has not many roads. Lately, however, much progress has been made in road-making. The road from Trivandrum across the Aramboly Pass to Tinnevelly has been thoroughly repaired, and the Ariyancauvoo line has been provided with a good cart-road. A road to Peermaid, with branches to both sides of the ghauts, and several other roads, connect these lines. On the whole, internal communication is tolerably complete.

8. *Medical.*—In common with whole belt of coast-line on the western side of India under the ghauts, Travancore has an abundant rainfall, and droughts are almost unknown. Every variety of climate and temperature is found in the State. The climate of the lower country is much the same as Malabar, and is influenced in the same way by the long seaboard and the heavy south-west monsoon. From March to the beginning of May it is hot, the readings of the thermometer in the shade being often 90° and 91° F., and seldom below 86°. From June to September is the wet season, when the temperature is not high. October to February is the cold season, and temperature is rarely as high as 80°, except in February. The most characteristic endemic is the disease known as "Cochin leg;" and fevers are prevalent in some of the inland tracts.

9. *General Administration.*—The gross revenue of the State of Travancore in 1882-83 was Rupees 60,22,544; its gross expenditure, Rupees 59,20,163. The chief sources of revenue are the land-tax, which produced Rupees 17,59,686; customs yielded Rupees 4,10,714; abkarry and opium duties Rupees 2,83,210; tobacco, Rupees 7,78,243; salt, Rupees 13,23,785; and cardamoms and timber, Rupees 3,33,263. In the same year, Rupees 8,49,872 was expended on public works. No transit duties are levied between Travancore and British territory. The judicial establishment consists of eighteen moonsifs' courts, sixty-four criminal and five zillah courts, all controlled by the High Court at the capital. Travancore has now a distinct organized police force. In 1882-83, the police force numbered 1,607, besides a Superintendent and three assistants, the proportion being one policeman to every 4·8 square miles of country and to every 1,729 of the population. There are four jails, two at Trivandrum, one at Quilon, and one at Alleppey. The average daily number of prisoners in 1883 was 525; the average mortality, 4 per cent.; and the average cost per head per annum, Rupees 76 Annas 8. Intramural labor has been introduced with success into the Central Jail at Trivandrum. The chief educational institution is the Trivandrum High School and College, which contains over 1,700 pupils. There is also a girls' school at Trivandrum, superintended by an English lady, with an attendance of 70 pupils. There are 24 district schools, feeders to the High School, which are analogous to the zillah schools of the Madras Presidency. Then come the vernacular schools, divided into four classes, viz., district, village, town-aided and provincial-aided. There are 39 of the first and 185 of the second while the aided schools number 25 and 415 in the town and in the interior. The total attendance of pupils in all these schools amounts to 35,588. By far the largest number of aided schools belong to missionary agencies. The schools of the Church, London, and Roman Catholic missions also receive State grants. The attendance in the mission schools is nearly 16,000. There is a special school at Mavelikara—a sort of Raj-comaur college—for the education of the young scions of former chiefs and nobles, established in 1872-73. A director of vernacular education, with an adequate staff of inspectors and deputy inspectors, controls the schools. The total cost of educational establishments in 1882-83, belonging to the Circar, was, exclusive of furniture, buildings, &c., a lakh of rupees. Travancore does not compare unfavorably with the provinces of British India in the matter of the education of its people. There are in the country 132,702 persons able to read and write, which gives a proportion of 5·74 per cent. With a view to the further extension and improvement of primary education the grant-in-aid rules have lately been so extended as to admit of the large number of indigenous schools to be found throughout the country being brought into the educational system of the State. Very recently a Book Society has been formed for preparing school-books and for otherwise supplying the constantly-increasing demand for instruction and healthy reading, and a normal school has also been established for meeting another great want, namely, trained vernacular teachers for the numerous State, aided and indigenous schools. Until the year 1861, the Anjel or local post was maintained only for State purposes; it is now open to the public. There were 87 post offices in Travancore in 1882-83, the total cost of which was 39,744 rupees. The number of private letters carried was 351,303. The military force of the State (1878-79) consists of 1,360 infantry and 30 artillery men, with 4 guns. In Appendix XLVI is given a more detailed account of Travancore administration, which will be of utility for comparison with arrangements in British territory.

TRICHINOPOLY.

Description. — This district lies between 10° 37′ and 11° 30′ 30″ N. lat., and between 78° 12′ and 79° 30′ E. long. Area, according to the census of 1881, 3,561 square miles; population, according to the census of 1881, 1,215,033 souls. The district is bounded on the north-west and north by Salem, on the north and north-east by South Arcot, on the east and south-east by Tanjore, on the south by the Poodoocottah State and Madura, and on the west by Coimbatore. The administrative head-quarters are at the city of Trichinopoly.

2. *Physical Geography.* — The surface of the country, though generally flat, is broken here and there by protruding masses of crystalline rock, of which the Trichinopoly Rock in the fort, and the Golden Rock near the central jail, are well-known examples. Many others are scattered over the district, including Rutnagherry, near Coolitalay, and Permaulmullay, near Toorayore. The only mountains of any importance are the Patchaimullays (height about 2,000 feet), which extended into Salem district. These are very malarious. The river Cauvery, and its branch the Coleroon, are the most important rivers in Trichinopoly. The former enters the district at its western extremity, and traverses it from west to east. About 11 miles west of the city of Trichinopoly it separates into two branches, one of which, flowing south-east, retains the name of Cauvery while the other running north-east is termed the Coleroon. These rivers almost rejoin each other about 10 miles east of Trichinopoly city, where it has been found necessary to separate them by an artificial embankment. The tract thus enclosed by the two rivers is known as the island of Shreerungam. After its separation from the Cauvery, the Coleroon flows north-east through the talook of Trichinopoly, and farther on forms the boundary between Oodayarpolliem talook and Tanjore district. The river Vellaur forms the northern boundary of a portion of the district, separating it from South Arcot. A few villages in the extreme west are irrigated by the Amravatty, which forms the boundary between Trichinopoly and Coimbatore. The chief minerals of economic value are building stone and stone useful for road metalling, including gneiss, limestone, and laterite. Pottery materials, including pipe-clay, gypsum, &c., are common, but the gypsum is generally impure. Common salt effloresces from the soil in many parts, and is collected by the poor for household use. The cretaceous rocks contain ferruginous nodules, which were formerly smelted when fuel was more abundant. One or two villages in the north of Moosiry talook are the only places where iron is now manufactured. Copper ores are found in small quantities. A shell marble is found in Perambalore talook, of which the tops of tables, paper-weights, and similar ornaments are made. The geological survey of Trichinopoly was made in 1857—60. The larger wild animals are almost extinct; a tiger now and then makes his appearance, and bears are found on the Patchaimullay Hills and in Perambalore talook. Snipe, teal, and wild duck are plentiful, but there is no game of any other description.

3. *History.*—The district of Trichinopoly lies exactly at the junction of the territories of the three old peninsula kingdoms of the Pandyans, the Cholas, and the Congoo rulers. To the east lay the country of the Cholas, to the south that of the Pandyans, while the Congoo kings ruled over the tracts to the north-west. The Coorumba kings styled Pallavas probably disputed with the Cholas the sovereignty of the forests and hills to the north and north-east. Native tradition places the boundary of the three chief kingdoms at the extreme west of the district, along the banks of the river Caraypottanaur, or Caroovattaur, which falls into the Cauvery at a point 11 miles east of Caroor. An embankment marks the frontier-line, and the name of the river, which signifies "the river of the boundary," is pointed out as corroborative of the legend. The residents also on the south of the Cauvery, in the Coolitalay talook

show an embankment running southwards from a point exactly opposite the embouchure of the Caraypottanaur, and state that that marked the boundary of the three kingdoms. It is probable that the point of contact was close to the Caraypottanaur at one period, though the frontier in all probability frequently changed. At least as early as the eleventh century, the greater part of the district owed allegiance to the Cholas. The Cholas in that century had their capital at Gungaycondasorapooram, it having been previously at Warriore. At present it is impossible to say when the change occurred and under what circumstances, for the whole history of Southern India previous to the tenth and eleventh centuries is hidden in obscurity. There was a kingdom with its capital at Warriore in Ptolemy's time, and inscriptions of other dynasties further north show that from early times members of those families boasted of conquests over Chola kings, but for all practical purposes observation must commence from the eleventh century, when the Cholas suddenly emerged from obscurity into the dignity of a powerful and widely-extended kingdom. The Cholas then conquered and entirely subdued the Pallavas of Canchy and the Congoo kings of the central peninsula; while by an intermarriage with a Chalookyan princess of Vengy, their arms were extended northwards, as far at least as the Godavery, perhaps as far as the borders of the kingdom then in existence of the Gujaputties of Orissa. Their hold over a large portion of this tract was very precarious, and gradually the kingdom fell to pieces. They were overthrown by the Congoo kings in the west, and by the Ganaputties of Warangal in the north, and their complete downfall was effected through a Mussalman invasion in A.D 1310, and through the conquest by the early sovereigns of Vijianugger a few years later. It is probable that the Cholas retained a firm hold over the whole of the lower basin of the Cauvery and Coleroon from a point near Caroor to the sea, during the entire period of their existence as a sovereign power. Trichinopoly, or at least the greater part of the district, always continued under them. The Mussalman invasion of A.D. 1310 opened up a new era in the history of the country. Malik Kaufoor was general of the Emperor of Delhi, and performed the duties assigned to him with vigor. He subdued large portions of the peninsula, and he and his successors held the country as viceroys for 37 years, when they were driven out, and the Vijianugger kingdom gradually obtained dominion over the south of India. Meanwhile, there was a short interregnum in the Chola and Pandya countries. Cumpana Wodeyar, whom some assert to have been a general of the Mysore chief, and some a commander sent from the then infant sovereignty of Vijianugger, held the country for some years, his family ruling from about A.D. 1365 to 1404. It has been supposed that Cumpana Wodeyar did not extend his conquest to Tanjore, where the Chola kings were then reigning. There are several of his inscriptions, however, and those of his successor or successors at Conjeeveram. After the Wodeyars it is probable that constant struggles for sovereignty took place between the Naick adventurers from Vijianugger, the legitimate chiefs of the Chola and Pandyan dynasties, the chiefs of the Mysore families, and the generals of the forces of Vijianugger; till anarchy was put an end to by the final triumph of the latter. The whole country then fell under the powerful Vijianugger sovereignty as developed in the sixteenth century. In A.D. 1559, Vishwanatha Naick, an emissary from Vijianugger, established himself on the throne of the Pandyans, and created a new dynasty, that of the Naicks of Madura, who held the Trichinopoly District more or less firmly till the Mussalmans finally ejected them in 1736. Perpetual fighting occurred during this period between the Naiacks, the Tanjore Cholas (and after them the Mahratta dynasty of Tanjore), the Mysore chiefs, and the Mussalmans; and the Trichinopoly district was a constant scene of bloodshed and strife. It is to Vishwanatha that the town and rock of Trichinopoly owes much of its present grandeur and importance. The Naicks held the country for the period above-mentioned. The greatest of them was the famous Trimal Naick, who died in 1659. His grandson, Chokka Naick removed the capital of the kingdom from Madura to Trichinopoly, where he raised the building known as the Nawab's Palace. Chunda Sahib, a relation of the Mahomedan Nawab of Arcot, got possession of Trichinopoly in 1740 by deceiving Meenakshee, the widow of the last of the Naicks. In the contest between the French and English in the south of India between 1749 and 1763, the French espoused the cause of Chunda Sahib, and the English that of Mahomed Ally, afterwards Nawab of Arcot. After his defeat at the battle of Amboor, the latter prince fled to Trichinopoly, where he was besieged by Chunda Sahib, the French, and the Mahrattas, who took up their position in the island of Shreerungam. It was to draw off a portion of the besieging force from Trichinopoly that Clive, then an officer in the garrison there, undertook his famous expedition to Arcot. This move had the desired effect, as it obliged Chunda Sahib to send a large number of his troops to join in the siege of that city. Shortly afterwards, a detachment was sent under Major Lawrence, through Tanjore district, to relieve Trichinopoly. The French attempted to intercept it, but without success; while Captain Dalton almost immediately afterwards successfully attacked a body of men sent by Dupleix to reinforce the army in Shreerungam, and prevented it joining the besieging force. On this Chunda Sahib's troops deserted him, he was himself put to death, and the siege of Trichinopoly was virtually raised. The principal operations during this portion of the war were carried on in the Shreerungam island, and in the villages along the old road from Madras to Trichinopoly. On Chunda Sahib's death, the general of the Mysore army, who had up to that time assisted Mahomed Ally, claimed Trichinopoly as the reward of his services. His application to be put in possession of the city was refused, and he retreated to Shreerungam, and, aided by the French, laid siege a second time to Trichinopoly, attempting to reduce the place by famine. Major Lawrence was sent to the assistance of the besieged force, and shortlyafter his arrival, the French in Shreerungam were reinforced by a large detachment sent by Dupleix. On this, the besiegers moved their camp and took up a position a little beyond the present race-course, with a view to intercept all supplies brought into the city. Here they were attacked and utterly defeated by Major Lawrence in the battle of the Golden Rock. After this Major Lawrence went to Tanjore to obtain reinforcements from the Mahratta Rajah of that place. On his return the French unsuccessfully tried to intercept him as he marched towards the city through the open plain lying to the south-east, not far from the site of the present central jail. In the battle of the Sugar-loaf Rock, fought not very far from the same place, the French and their allies were again defeated. The only other incident in the action round Trichinopoly of any interest was the unsuccessful attempt made to surprise the city by a night attack on Dalton battery, situated north-west of the fort, which is now almost the only undemolished portion of the old fortifications. A graphic account of all these events is given in Orme's history. The siege of Trichinopoly was at last raised on the conclusion of a provisional treaty between the French and English in 1754. War, however, broke out again almost immediately. But the interest in this portion of the conflict centres in the siege of Fort St. George and Sir Eyre Coote's victories, and the skirmishes that took place round Trichinopoly were insignificant and unimportant. By the treaty of Paris, concluded in 1763, Mahomed Ally was recognised as Nawab of the Carnatic. In the wars that followed soon afterwards with Hyder Ally and Tippoo, the district of Trichinopoly was devastated more than once, but it was not the scene of any of the important actions that were fought.

4. *Archæology*.—There are very few rude stone monuments in the district. Their absence seems to show the existence of a different race to that which inhabited the country to the west and north. Serpent-worship and demonolatry abound in the district. Gungaycondapooram, mentioned above as the capital of the Cholas in the eleventh century, has an old and remarkable temple. The builders of the Tanjore temple took this as a model. For an account of Shreerungam, 2½ miles north of Trichinopoly, reference should be made to Vol. III. Trichinopoly town is chiefly noticeable for its fine rock, and the group of temples and temple buildings situated on and around it. A reference to Vol. III will show a complete list of all the places containing antiquities in the district.

5. *Population*.—The earliest attempt made to ascertain the population of the district was in 1821-22, when it was stated to be 788,196. In 1836-37, the population was returned at 552,477, or more than one-third less the figure arrived at fifteen years previously. The methods of these early attempts are so untrustworthy that it would be rash to assume that the population of the district really did decrease between 1822 and 1838. Since 1851-52, a quinquennial census has been taken. In 1851-52, the population was returned at 709,196; in 1866-67, at 1,006,826. These figures are also untrustworthy. In 1871, the first detailed census was taken, and returns approaching to accuracy were obtained. The results showed 588,134 males and 612,274 females; total, 1,200,408. A second census was taken in 1881 when 586,434 males and 628,599 females, total 1,215,033, were enumerated. The most numerous Hindoo castes, according to the census of 1881, are the Vellalars (193,001) and the Vanniars (378,442). Brahmins number 34,110. Classified according to religion, there were 1,119,434 Hindoos, 34,104 Mussalmans, 58,261 Native Christians, 548 European and Eurasian Christians, and 6 Jeinas. Of the native converts, 54,747 are Roman Catholics and only 1,463 Protestants. The district formed part of the great Jesuit mission of Madura, founded in the beginning of the 17th century. Political events in Europe however almost deprived the mission of priests for nearly

seventy-eight years (1759—1837). The most important towns in the district are Trichinopoly city (84,449); Shreerungam, famous for its Vishnoo temple (19,773); Toorayore (6,637); Mahadanapooram (6,191); Oodayarpolliem (5,703); Ariyaloor (5,871); Cooroombaloor (5,456). There are also 80 towns with a population exceeding 2,000. In many cases, however, those so-called towns are merely clusters of hamlets, often containing only a few houses each, which have been grouped together for purposes of revenue administration. Trichinopoly and Shreerungam are the only municipalities in the district. The receipts of these in 1877-78 were Rupees 67,290 and 12,572 respectively and in 1883-84 Rupees 86,754 and 20,231 respectively.

6. *Agriculture.*—The chief crops are rice, cholam (Sorghum vulgare), raggy (Eleusine corocana), cumboo (Holcus spicata), considered the staple food of the district, varagoo (Paspalum scrobiculatum), doll (Cajanus Indicus), horse-gram (Dolichos biflorus), oolandoo (Phaseolus mungo), cotton, tobacco, indigo, sugar-cane, cocoanut, plantain, arecanut, and chillies. The staple crop in the irrigated portions of the district, which lie along both banks of the Cauvery and Coleroon, is rice. In the unirrigated parts, cholam, cumboo, and varagoo are grown in almost equal quantities. There are two main varieties of rice in the district known as car and pishanam or chumba. The former is an inferior description of grain, consumed as a rule by the poor. It is usually sown in November and December, and harvested in March and April; but it is also sometimes sown in July and August, and harvested in November and December. Chumba is a superior sort of rice used by the better classes. When grown as a single crop, it is sown in July and harvested in December, and when as a second crop, often after a first crop of car, it is sown in November and harvested in April. Rice is sometimes sown broadcast, and sometimes in seed-beds and transplanted afterwards. The total area of the district amounts to 2,271,125 acres, of which 233,187 are inam or revenue-free and 410,200 are held on zemindarry tenure. Accurate statistics are not available for these lands; but of the remainder, 816,996 acres are under cultivation, 417,710 uncultivated but capable of cultivation, and 339,032 uncultivable. The area under the principal crops in 1883-84 was—rice, 168,159 acres; cumboo, 155,382; varagoo, 105,839; cholam, 120,288; raggy, 86,711; cotton, 33,693; doll, 29,105; and gram 34,483 acres. The outturn of an acre of the best rice land is between 30 and 40 kullams, 30 kullams being equal to 1 ton 11 cwt. 11 lb. On land of this description, a second crop, averaging about half the first, can ordinarily be raised. The irrigated lands along the rivers are as a rule owned by men who themselves take no part in the cultivation, but leave it entirely to labourers (pullars), who remain on the same land from generation to generation, and are paid by receiving a share of the produce. Bullocks and buffaloes are the only animals used in agriculture. Agricultural labourers are generally paid in grain. From 1881-82 to 1883-84, their money wages averaged Rupees 5 Annas 5 a month. The wages of common masons, carpenters, and smiths averaged Rupees 15 Annas 2 Pie 1 a month. The average price of "second sort" rice during the five years ending 1883-84 was 15·23 imperial seers for Rupee 1; in 1879-80, 12·05; in 1880-81, 14·34; in 1881-82, 16·31; in 1882-83, 16·10; in 1883-84, 17·36 seers for Rupee 1. Similarly the price of cumboo (the staple food) in the five years ending 1883 varied from 15 to 43; in 1879, from 15 to 23; in 1880, from 23 to 30; in 1881, from 24 to 34; in 1882, from 28 to 37; in 1883, from 30 to 43 seers for Rupee 1. An imperial seer equals 2·2046 lb.

7. *Forestry.*—Though the district is on the whole well-wooded, nothing worthy of the name of forest is to be found in it. The only important range of hills is that known as the Patchaimullays. These hills rise to a height of about 2,500 feet, and are situated partly in the Trichinopoly and partly in the Salem district, the latter district claiming the larger portion. The district is otherwise exceedingly flat excepting in the southern part of the Coolitalay talook, where there are some low-lying hills known as the Punjantaungy range, and some others belonging to the Cadavoor Zemindar. There are also scattered, throughout the district, isolated hills here and there, the most striking being the "Talamullay" in the Moosiry talook, which rises abruptly to a very considerable elevation. The Patchaimullay Hills are extremely feverish, notwithstanding which, however, there are numerous villages and a considerable population there. A good road has been constructed up the Moosiry side, and the ascent is a very easy one. There is a fair amount of jungle in this part, the most common tree being the oosilay (Acacia amara). The amount of cultivation that has been carried on for many years has denuded the hills of much of the jungle on the summit, though there are still in parts large area of fairly good forest, containing valuable trees such as black-wood, teak, vengay (Pterocarpus marsupium) and vekkaly (Anogeissus latifolia). Clumps of bamboos are scattered all over the hills. The minor products of the hills consist of gallnuts, and a few barks, honey, wax, &c., and the hill gooseberry is found in large quantities. The revenue is obtained from the sale of the various forest products by the permit system, and by the supply of fuel to the Railway Company. The Forest Department commenced work here about 1871, but little was done beyond the formation of fuel reserves and plantation till quite recently. Reserves have been selected on the Patchaimullays. Some railway fuel reserves have been constituted in the Manapauray Sub-Division. There are a number of plantations, principally casuarina, in this district along the banks of the Cauvery and Coleroon, amounting to more than 1,000 acres in all. The land planted is principally padoogay, and the success of the planting is beyond doubt. The trees planted are Casuarina, Acacia Arabica, Inga dulcis, Inga saman, Thespesia populnea, Palmyra, Albizzia lebbek, Dalbergia sissu, Melia, Eugenia jambolana, &c. The division is under the charge of a First-grade Assistant Conservator with head-quarters at Trichinopoly, and five ranges with head-quarters at Trichinopoly, Coolitalay, Moosiry, Perambalore, and Oodayarpolliem.

8. *Commerce and Trade.*—The most important local industries are weaving and the manufacture of cigars. The latter is almost entirely confined to Trichinopoly city, whence a large number of cigars is sent to all parts of India. The tobacco used is chiefly imported from Dindigul, that of local growth being coarse and inferior. The goldsmiths of Trichinopoly also are of considerable repute. Trichinopoly city is the principal seat of trade; but there are numerous fairs all over the district, held, as a rule, weekly, for grain, cattle, &c. The principal exports are grain of all kinds, especially rice; the imports, tobacco and salt. No newspapers are published in the district. There are four printing presses, one the Government District Press, the others owned by certain natives in Trichinopoly. In all, work is turned out in English and Tamul. In 1883-84 there were 570 miles of imperial and local roads. Trichinopoly is on the whole well provided with means of communication. There are no canals. The South Indian Railway traverses the district from east to west, running through Trichinopoly and Coolitalay talooks (55¼ miles). The southern extension of this line runs from Trichinopoly city through the south-eastern portion of Coolitalay talook, and thence into Madura (37¾ miles). In 1883, these lines carried to and from the ten stations in the district, 1,010,521 passengers and 58,225 tons of goods.

9. *Famine, Flood, &c.*—The district does not suffer to any great extent from either blight or flood. When it first came under British rule, the irrigated portions of the district were constantly flooded by the Cauvery and Coleroon overflowing their banks. These rivers are now well embanked, and such disasters are almost unknown. The district is not especially liable to famine, as the rivers just named, on which the greater portion of the "wet" lands are dependent, seldom if ever fail. The dry crops are of course as uncertain here as elsewhere; but owing to the large extent of river-irrigated land, Trichinopoly is not very largely dependent on them for its food-supply. The last famine was that of 1876-77. The distress which then prevailed was not due to failure of crops, although these had been deficient for two years, especially in the unirrigated tract, but to a rise of prices caused by exportation of grain to other districts.

10. *Medical.*—Trichinopoly is one of the hottest and driest districts in Madras, though free from extremes of heat and cold. In the high unirrigated parts there is much sun-glare and reflected and radiated heat, and at times hot winds with clouds of dust. At certain seasons the atmosphere is very sultry and enervating. Both monsoons are felt, but the heaviest rainfall is brought by the north-east monsoon. From 1866-67 to 1875-76, the annual rainfall averaged 34·08 inches. In 1876-77 (famine year) the rainfall was only 23·04 inches; but from 1877-78, in which it rose again to 37·89 inches, to 1883-84 the annual average was 35·12 inches. The mean yearly temperature is 85·5°F. The climate is equable, and it is probably for this reason not unfavourable to the health of either Natives or Europeans. For the five years ending 1876, the reported death-rate was 19·7 per thousand. In 1877 (famine year) it rose to 47·5, but in 1878 it improved considerably, being only 24·6. From 1879 to 1883 the average rate was 19·8 per thousand.

11. *General Administration.*—Under the Mahomedan government the revenue in the irrigated parts of the district was collected by an equal division of the produce between Government and the cultivators, and in the unirrigated parts, a money assessment was levied according to the nature of the soil. When Trichinopoly passed into the hands of the English (in 1800), money payments were introduced everywhere, and, with a few exceptions, one-half of the produce was taken as the share of the government. Up to the introduction of the revised settlement

in 1864, few changes were made, but the assessment was from time to time reduced. The whole of the district was first surveyed and the lands classified according to the quality of the soil, proximity to markets, &c. Revised rates of assessment were then introduced, ranging from Rupee 1 to Rupees 7 Annas 8 an acre on "wet" land, and Annas 4 to Rupees 3 Annas 8 on "dry," the mass of "wet" lands being charged from Rupees 2 Annas 8 to Rupees 6, and the "dry" not more than a rupee. The amount of the assessment for the year before the settlement was Rupees 16,69,250, and for the year in which it was introduced, Rupees 11,94,420. In the following seven years, however, the land revenue increased by about Rupees 3,00,000 principally owing to an increase of 24 per cent. in the extent of land cultivated. The total net revenue of the district in 1801-2 was Rupees 14,89,520; in 1860-61, it had risen to Rupees 16,35,570; in 1870-71, to Rupees 19,29,630; in 1883-84 it was Rupees 18,45,407. The total expenditure on civil administration in 1860-61 was Rupees 1,97,060; in 1870-71, it was Rupees 1,44,870; and in 1883-84 Rupees 1,20,590. The land in 1860-61 contributed Rupees 15,04,450 of the revenue, in 1870-71 Rupees 16,33,630, and in 1883-84 Rupees 15,35,701. In 1878-79, the land revenue was Rupees 18,54,330, and the gross revenue Rupees 21,34,800, and in 1883-84 the former was Rupees 16,26,194 and the latter Rupees 19,70,870. The total cost of officials and police of all kinds was Rupees 16,18,984 in 1883-84. The number of estates upon the rent-roll of the district in 1850-51 was 68,255; in 1860-61, 102,277; and in 1882-83, 148,417. The average land revenue paid by each estate in 1850-51 was Rupees 20; in 1860-61, Rupees 14; in 1882-83, Rupees 10 Annas 2 Pies 3. For administrative purposes, the district is divided into five talooks in three divisions, under the Collector, Head Assistant Collector, and a Deputy Collector. All these are magistrates, and have under them 10 sub-magistrates, 5 of whom are tahsildars in charge of talooks. There was also a cantonment magistrate at Trichinopoly (the only military station), but the office was abolished in 1879. The District and Sessions Judge has under him 3 district moonsifs for civil suits. There is now an additional district moonsif also. The village headmen have petty judicial powers, civil and criminal. The Police force numbers 779 men and 19 officers. The district contains 1 central, 1 district, and 10 subsidiary jails. The central jail is near Trichinopoly, and receives prisoners from all parts of Madras, from Burmah, and the Straits. The average daily number of prisoners in 1882 was, in the central jail, 880; district jail, 124; subsidiary jails, 30. The cost per prisoner was Rupees 61 in the central jail and Rupees 81 in the district jail. 8·4 per cent. of the people can read and write. Of these only 4,433 are females. In 1883-84, there were 523 schools under inspection with 10,830 pupils. Most of these are aided by grants from local and municipal funds. There are still a number of village (pial) schools of which no statistics are available.

VENCATAGHERRY.

[For description of this zemindarry, see the foot-note in article on Zemindarries, Chapter I].

VIZAGAPATAM.

Description.—This district lies between 17° 14′ 30″ and 18° 58′ N. lat., and between 82° 19′ and 83° 59′ E. long. Its area (including the Jeypore and Vizianagram zemindarries, which are under British administration), is 18,344 square miles; its population (1881) is 2,485,141. Vizagapatam is bounded on the north by the district of Ganjam and the Central Provinces, on the east by Ganjam and the sea, on the south by the sea and Godavery district, and on the west by the Central Provinces. It consists of 14 zemindarries, 37 proprietary estates, and 3 Government talooks; namely, Golcondah, Sarwasiddhy and Palcondah. The administrative head-quarters are at the town of Vizagapatam.

2. *Physical Geography.*—Vizagapatam forms a portion of the north maritime province of the Madras Presidency, historically known as the Northern Circars. It is a beautiful, picturesque, and hilly country, but, in the greater part, most unhealthy. A chain of the Eastern Ghauts runs through the district in an oblique direction from north-east to south-west, dividing it into two unequal portions, the larger being mountainous and the smaller flat. The higher peaks of this range attain an elevation of more than 5,000 feet above the level of the sea. The slopes of the mountains on both sides are clothed with luxuriant vegetation, amid which rise many tall forest trees; while the graceful bamboo grows profusely in the valleys. This range forms the watershed of the country. The drainage on the east is carried by numerous streams direct to the sea; and the drainage to the west flows into the Godavery either through the Indrauvaty or through the Severy and Sillair rivers. Along the north of the Jeypore country another watershed extends, which separates the drainage between the Mahanuddy and the Godavery, the sources of several tributaries of the former, particularly the Tel, its chief tributary, being found here. To the west of the Eastern Ghauts is situated the greater portion of the extensive zemindarry of Jeypore, which is for the most part very hilly and jungly, the fertile vale through which the Indrauvaty flows being an exception to the character of the rest of the zemindarry. The north and north-west of the district, which is chiefly inhabited by Khonds and Sowrahs, is also mountainous. In the extreme north, a remarkable mass of hills, called the Neemgherries, rises to a height of 4,972 feet above the sea, and these hills are separated by valleys of not more than 1,200 feet from the neighbouring ranges of ghauts. The drainage from the Neemgherries flows in a south-east direction to the sea, forming the rivers at Chicacole and Calingapatam. The plain along the Bay of Bengal to the south-east of the ghauts is exceedingly rich and fertile. It is described as a vast sheet of cultivation, green with rice-fields and gardens of sugar-cane and tobacco. The flourishing export trade at Bimlipatam and at Calingapatam, in the neighbouring district of Ganjam, has probably caused the cultivated area to be doubled in the course of the last twenty or thirty years. The plain near the sea-coast is diversified with hills; and an endeavour has been made, but with limited success, to convert one or other of those which are most accessible from Vizagapatam into a sanitarium. The line of coast and the entrance to the harbour of Vizagapatam round the Dolphin's Nose are very picturesque.

3. *History.*—The present district of Vizagapatam formed, in the early days of Hindoo history, a portion of the ancient kingdom of Calinga. It was subsequently conquered by the eastern branch of the Chalookya dynasty, which originally settled at Vengy, near Ellore, and afterwards transferred its capital to Rajahmundry. As a general rule, it had the same history as the whole maritime tracts from Ganjam to the Godavery, sometimes belonging to the Gujapatty Rajahs of Orissa and sometimes to the rulers of Telingana. In later times, Mahomed II, of the Bahminy dynasty in the Deccan, assisted a claimant to gain the throne of Orissa, and received from him in return the provinces of Condapilly and Rajahmundry. During the confusion consequent on the overthrow of the Bahminy dynasty, the sovereign of Orissa recovered those provinces; but Ibrahim, of the Kootbshahy line, not only retook them, but also annexed to his dominions the whole country as far north as Chicacole. On the subjugation of Golcondah by Aurungzeeb in 1687, these northern provinces nominally formed part of his magnificent empire; but his sovereignty over them was merely a military occupation. They were farmed by zemindars, or governed by military chiefs. Vizagapatam was placed more directly under the emperor's viceroy, stationed at Chicacole. On the dissolution of the Moghul empire, the Northern Circars passed into the possession of the Nizam of Hyderabad, who established a better revenue and judicial system than had existed hitherto, the principal Mahomedan officials being stationed at Rajahmundry and Chicacole. During the disputed succession which ensued on the death of the first Nizam, the French rendered such essential services in placing Salaubut Jung on the throne, that he presented to them the four Circars of Moostafanugger, Ellore, Rajahmundry and Chicacole as they were then called; and M. Bussy, the greatest military genius whom the French ever possessed in India, received the firmauns for them in 1753. After a time, M. Bussy himself assumed the government; and during one of his campaigns the memorable siege of Bobbily occurred, which made such a deep impression on the Hindoos, that it has been commemorated in ballads which are sung to this day. Gujapatty Vijiaram Raz, Rajah of Vizianagram, was at that time the most powerful Hindoo noble in the Circar of Chicacole; and M. Bussy had, as a return for his services, leased that Circar and Rajahmundry to him on very favourable terms. Runga Row, the Rajah of Bobbily, an estate about 172 miles north of Vizagapatam, had a hereditary feud with the Rajah of Vizianagram. The latter used all his influence to persuade Bussy to ruin the Rajah of Bobbily; and at length a suitable occasion presented itself. A French detachment was attacked by some troops of Runga Row, and a French army, accompanied by a large contingent from

Vizianagram, proceeded to besiege the hill-fort of Bobbily. A terrible scene ensued. Runga Row and his followers were resolved not to yield; and when they perceived that resistance was vain, they put to death all the women and children in the fort, and then died fighting sword in hand, refusing every offer of quarter. An infant son of Runga Row was alone rescued from this scene of slaughter. Four of his retainers seeing their chief fall, made a vow to avenge his death. Having secreted themselves in the jungle for some time, they penetrated to Vijiaram Raz's tent by night and assassinated him. After settling the government of Chicacole, Bussy returned to Vizagapatam, where he took the factory from the English which had been established in the middle of the seventeenth century. In 1689, a rupture occurred between the East India Company and the Moghul Emperor owing to disputes in Bengal, and the latter ordered the possessions of the Company at Vizagapatam to be attacked; the warehouses were seized and all the English residents put to death. In the following year, a fresh firmaun was issued, permitting the Company to have settlements at Vizagapatam and at other places on the coast. These factories had continued in the Company's possession up to the time when the French took them. The French did not keep them long. In 1759, Colonel Forde was authorized by Clive to proceed from Bengal to the Northern Circars, and co-operate with the Rajah of Vizianagram, who had become dissatisfied with the alliance which his father had entered into with the French, and had invited the assistance of the English to wrest the country from them. Colonel Forde landed at Vizagapatam on 20th October 1759. After a brief but brilliant campaign, in which he gained a decisive victory over the French in Godavery district and took from them the fort at Masulipatam, he received from the Nizam a grant bestowing certain territory around Masulipatam on the East India Company, and prohibiting any future settlement of the French in the Northern Circars. In 1765, Lord Clive obtained an imperial firmaun granting the Northern Circars to the English; and in 1768, a treaty was entered into with the Nizam, who then finally ceded them. Vizagapatam, together with the rest of the province, thus passed into the possession of the East India Company. For the remainder of the century, the history of the district is principally connected with the fortunes of the Vizianagram family, who were all-powerful. The intrigues of Seetaram Raz, the Rajah's brother, and of the Diwan Jugganath Raz, in 1781, led to the dismissal of Sir Thomas Rumbold, then Governor of Madras, by the Court of Directors. In 1784, the Committee of Circuit, who had been appointed by Government to make an accurate and careful inquiry into the condition and resources of the Northern Circars, sent in their report on the Cassimcote division of the Chicacole Circar. That portion of it which is now included in Vizagapatam district was divided into (1) Havelly lands, which consisted of the lands immediately under Government; (2) the Vizagapatam farms, or 33 petty villages in the vicinity of the town; and (3) the Vizianagram zemindarry, including the tributary estates of Andhra, Golcondah, Jeypore and Palcondah. No action was taken on this report. The administration of affairs remained in the hands of the Chief and Council at Vizagapatam; but in 1794, the Provincial Councils were abolished, and the whole of the Northern Circars was divided into collectorates, the present district of Vizagapatam being apportioned between three. Bitter disputes had continued between the Rajah of Vizianagram and his brother, Seetaram Raz, who was at last summoned by the authorities to Madras. The zemindarry had, however, fallen into heavy arrears of revenue, owing to the incompetence of the Rajah's management; and it was found necessary to proceed to the severe measure of sequestration. A detachment of European artillery and sepoys were sent to Vizagapatam to enforce this measure, and they took possession of the Rajah's fort at Vizianagram. The realization of the revenue was not the only reason for this step. Political reasons also influenced the Government, as the Rajah's military force was larger than was considered advisable, and he had obtained too great a preponderance of power over the other zemindars in the district. The Rajah naturally resented what he considered unjust treatment, and was vigorously supported in his opposition to Government by his supporters. He took up his quarters at Padmanabham, a village halfway between Vizianagram and Bimlipatam, where he was attacked by the military force under Lieutenant-Colonel Prendergast. He himself was slain, with several of his devoted followers, who had vowed not to desert him. This sharp but decisive action took place on 10th July 1794. After some little difficulty, a lease for his father's estate was given to Narrain Baboo, the late Rajah's youthful son. The extent of the zemindarry was considerably curtailed, arrangements for their territories being made direct by Government with the hill chiefs, and part of the estate was incorporated with the Government land. The principal chief thus directly treated with by the Government was the Zemindar of Jeypore; and the various estates have, with few exceptions, remained in the possession of the same families to the present time. In 1802, the permanent settlement, which had found so much favour in Bengal, was introduced into the Northern Circars. At that time there were 16 ancient zemindarries in the district, the permanent assessment on which amounted to Rupees 8,02,580. As in other districts of Madras, the Government land was also brought under the zemindarry system; and for this purpose it was parcelled out into convenient estates, which were put up to public sale. Twenty-six estates were thus created, and these together with the 16 ancient zemindarries formed the new collectorate of Vizagapatam. The new system was very unpopular with the zemindars, who for many years after its introduction were in a chronic state of discontent and disaffection. There were continual petty disturbances. Expeditions were frequently sent into the hills against the more refractory chiefs, and not always with success, for the climate was very malarious and the forts difficult of access. At last, towards the close of the year 1832, the disturbances in this district and in Ganjam became so serious that the Government were compelled to order a large military force to take the field for the purpose of suppressing them. Mr. George Russell was appointed Special Commissioner to ascertain the causes which had led to these insurrectionary outbreaks, to devise measures for their suppression, and to recommend the best policy for preventing their occurrence in future. Power was granted him to proclaim martial law in the disturbed districts. Mr. Russell discovered that the ostensible instigators of the disturbances in Vizagapatam were two discontented individuals, who had fomented the prevailing discontent. One was captured by the troops, and the other was compelled to flee from the district. There was also an insurrection at Palcondah, which was promptly and vigorously suppressed. At Mr. Russell's suggestion, a thorough change was made in the system under which the district was administered. It was considered unadvisable to maintain the ordinary regulations in mountainous tracts, where the authorities possessed neither police nor power; and it was determined to place the territories of the tributary chiefs exclusively under the Collector of the district, in whom the entire administration of civil and criminal justice was vested. In 1839, an Act was passed to this effect. Seven-eighths of the district, or all but the old Havelly land, was placed under the new system. The portion not included in the Agency was subordinated in judicial matters to the Civil and Sessions Judge of Chicacole. This arrangement lasted until 1863, when the Vizianagram and Bobbily zemindarries and Palcondah were exempted from the jurisdiction of the Agency, which now comprises only the hill tracts. Disturbances have been comparatively rare since these changes were effected. From 1845 to 1848, the hill chiefs in Golcondah gave a good deal of trouble to the troops. The estate had been attached owing to the murder of the Ranee, who had been placed in authority by Government. In 1857-58, there was another disturbance in this talook, which was speedily put down. In 1849-50, and again in 1855-56, disturbances broke out in Jeypore. There had been frequent disputes between the Rajah and his son, which required the interference of the Governor's Agent; and he considered it advisable to take under his charge the four talooks belonging to Jeypore on the eastern side of the ghauts, in order to save the zemindarry from falling into utter ruin. These talooks were restored to the present Rajah's control on his succeeding to the estate on his father's death in 1860. It was then determined to station an Assistant at Jeypore, together with an Assistant Superintendent of Police; and to bring the whole territory under the magisterial and judicial authority of the Agent and under the regular administration of the police. This change has been effected quietly, and with no greater degree of passive resistance than could reasonably have been expected. In 1879-80, the rebellion which had broken out in the Rumpa country in the Godavery district spread into the Goodem hill tracts, and thence into the Jeypore country. It was finally suppressed towards the close of 1880. As the history of the district was for the greater part of a century co-extensive with that of the zemindarry of Vizianagram, it is advisable to mention here the later fortunes of that estate, though since the complete establishment of the authority of the English Government it has not exercised the influence over the whole district that it formerly did. The estate was in 1817 placed in charge of the English authorities, a very heavy debt having been incurred in unliquidated balances; but it was restored to the Rajah at the end of five years clear of all incumbrances. In 1827, the Rajah proceeded to Benares, leaving his estate again under charge of the Government; and during the minority of his son, and for a few years after he had come of age (from 1848 to 1852), it was under the care of Mr. Crozier, who managed its affairs so admirably that he restored it to the Rajah, on his coming of age, with a surplus. The late zemindar, though frequently an absentee

landlord, has administered the estate with kindliness towards his ryots, and with profit to himself. He has also taken a prominent part in public affairs, and been rewarded with the star of a K.C.S.I., the title of Maharajah, the prefix of His Highness, and a salute of 13 guns. The present Maharajah succeeded to the estate in 1879 on the death of his father, and bids fair to prove himself a worthy son. In 1881 the title of Maharajah was conferred upon him and his title to the ancient local salute of 13 guns fully recognized. He was appointed a member of the local Legislative Council in March 1884.

4. *Archæology*.—The upper classes professed the Booddhist and Jain religions, till these gradually gave way to the worship of Brahminical deities. Vishnoo is the favourite god. The lower classes of inhabitants worship almost exclusively the village goddesses. Indeed the temples to the Hindoo deities are very scarce. The Sowrahs of the hills are the Sabaræ of Ptolemy. A Chentsoo Vocabulary will be found in Vol. II, App. XXV. Ramateertam, 5 miles north-east of Vizianagram, is a place of antiquarian interest. A reference to Vol. III will show a complete list of the places containing antiquities in the district.

5. *Population*.—The census of 1881 returned the population of Vizagapatam district, exclusive of the Agency tracts at 1,790,468. The Agency tracts, principally inhabited by uncivilised races, were treated in the matter of the census in a different manner to the remainder of the district. The census taken here was not synchronous, but was taken during a period of three or four months. The total number thus ascertained was 694,673, which, added to the above number, brings up the total population of the district to 2,485,141. Of the 2,485,141 persons then enumerated, 2,460,474 were Hindoos, 20,403 Mahomedans, 3,410 Christians, 20 Jeinas, and 834 "others." The great bulk of the Hindoos are Veishnavas, 80 per cent. professing to be of that sect, while only 20 per cent. belong to the Shiva sects. The Brahmins, however, are mostly Shiveites, as also the artisans and potters. Of the 20,403 Mahomedans, about three-fifths belonged to the Soonnee and 288 to the Shiah sect; only 9 returned themselves as Wahaubies. The Mahomedans in this district are, as a rule, in indigent circumstances, but 7·13 per cent. of them are able to read and write against 2·1 per cent. of the Hindoos. Of the Christians, 38·7 per cent. are Protestants and 61·3 per cent. Roman Catholics. The Brahmins form only 2·3 per cent. of the population; the Vellalar or agricultural castes 36·2 per cent. 45·6 of the population live by the soil, and of these 97 per cent. are members of the cultivating castes. Nearly 26,520 are weavers. Very few are employed in learned professions, and, of course, the greater number of these are Brahmins. The artisans who work in metals, &c., form a very exclusive guild, into which outsiders cannot obtain admission. Wild tribes, mostly of Dravidian origin, are very numerous in Vizagapatam. They chiefly inhabit the hill country of Jeypore and the uplands which stretch through the district into Ganjam. Several castes of Aryans from Orissa and the plains of the Northern Circars have settled in this tract, among whom are a great many Ooriyah Brahmins. The zemindars are of the Cshatriya caste, and their retainers are chiefly Paiks or hereditary fighting men, who have now in many instances settled down into industrious cultivators. The aboriginal tribes are very numerous, consisting chiefly of Khonds, Gonds, Gadabas, and Koois. Where they have come into contact with Hindoos, the cultivating Khonds call themselves Prajahs (or ryots). They are thrifty, hard-working agriculturists, undisturbed by the intestine broils which agitate the more turbulent Khonds of the north. They entertain an unconquerable love for their native soil, and regard themselves, and are regarded by the zemindars, as the owners of it. This same race is found in the extreme north of the district as Gonds; farther south as Batiyas, Condah Doras, Condah Caupoos (Teloogoo names signifying "Lords of the hills," and ryots), Mattiyas, and Koois. Their dialects are similar and indicate an identity of origin. The tribes who inhabit the more mountainous parts of the Jeypore country are more manly and civilised than the others, and when treated with respect soon throw off their wildness and become hard-working members of society. The Khonds were formerly addicted to the barbarous rite of Meriah, or offering human sacrifice, which the English Government has suppressed. Another primitive tribe, called the Sowrahs, inhabit the hills and slopes behind Palcondah and to the east of Goonapore. There is a Protestant mission at the town of Vizagapatam in connection with the London Missionary Society. In 1883, there were about 223 native converts there, and at the out-stations of Vizianagram and Chittivalasa. This mission maintains a high school for boys and two schools for girls. There is also a Roman Catholic mission, which maintains 2 orphanages, a boys' school and 3 girls' schools in the convent and 1 in the fort. The American Baptist Mission has also established itself at Bimlipatam and Bobbily.

6. *Agriculture*.—The maritime plain and some of the valleys in the uplands are very fertile. The principal "wet" crops are rice and sugar-cane; the chief "dry" crops, indigo, cotton, raggy, cumboo, korra, and gingelly-oil seed. An attempt was made by Messrs. Arbuthnot and Co., who rented the talooks of Palcondah and Honjeram, to improve the cultivation of sugar-cane and to introduce cotton into these talooks, but without success. The native method of cultivating the cane was found better adapted to the country, and cotton would not grow, the climate being too damp for it. The cultivation of indigo, however, has proved a great success. In 1883-84, 12,625 acres were cultivated with cotton, 14,167 with indigo, and 11,126 with sugar-cane throughout the district. Rice is the staple product of the country. The chief sources of irrigation in the Government talooks are the Varahanuddy, Shauradanuddy and Nagauvaly rivers, and two large natural lakes called the Comaravole and Condakirla Avas. Across the Varahanuddy, there are 3 anicuts or dams belonging to Government and 4 belonging to the proprietors through whose lands the river flows. The Goobbauda anicut, near Narsapatam, the Principal Assistant's head-quarters, is of great service in supplying the great tank there, and in ensuring water for the cattle all the year round, as well as in furnishing irrigation to the crops. Irrigation in the southern part of the Government talooks is dependent on the Shauradanuddy, across which 6 anicuts have been constructed. There are besides 560 tanks in the two talooks of Sarwasiddhy and Golcondah. The Nagauvaly irrigates the Palcondah talook under the rent of Messrs. Arbuthnot and Co. The zemindarry tracts are supplied by mountain streams and tanks. Prices of grain have risen very considerably during the last few years. The rate of wages has also risen, but not in the same proportion.

7. *Forestry*.—The conditions of forest work in this district are much the same as in Ganjam. The Government forests lie in the Palcondah hills to the north, in the Golcondah hills in the south-west, and in the coast talook of Sarwasiddhy. The rest of the country is zemindarry land, and the largest of the estates, Jeypore, has very considerable areas of forest similar to that of the Agency tracts of Ganjam. The Palcondah forests were examined in 1884. They contain large areas of young forest with an abundance of condah tungaidoo (Xylia dolabriformis), billoo (Chloroxylon swietenia) and other good trees along the slopes to the south-west overlooking the Palcondah talook; while within are good patches of googilapoo (Shorea robusta). Noticeable among the latter are those at Vony and Lutchmipooram which have been for some time carefully protected. It is probable that before long these forests will yield considerable material for the supply of the talooks of the Vizianagram sub-division and the Chicacole talook of Ganjam. The forests of the Golcondah talook lie partly in the plains, but chiefly in the hills of the main range of the Eastern Ghauts which rise to 4,500 feet in height. The chief trees are the condah tungaid (Xylia dolabriformis) and the nellamadoo (Terminalia tomentosa). Bamboos are also exported as well as myrabolams, the produce of the karakye (Terminalia chebula). Teak (Tectona grandis) is scarce and is chiefly found only towards the Godavery. These forests will shortly be laid out in reserves. In the Sarwasiddhy talook there is an extensive area of waste lands which will now be utilized partly as "reserved forest," partly as "fuel and fodder reserves." This land consists chiefly of stony hills, which stretch down to the sea. Adjoining the Government lands are those of the Pandoor-Mallavaram estate now under the Court of Wards, where some conservancy has been begun. In the Parvatipore sub-division there are still some patches of saul forest, but they are being denuded, and the hills along the sea-coast about Bimlipatam and Vizagapatam, in the Vizianagram zemindarry chiefly, will repay protection. A forest division has lately been constituted and two ranges formed in this district, the head-quarters being at Vizagapatam.

8. *Commerce and Trade*.—The only manufactures in the district worthy of notice are cotton cloths and the beautiful fancy wares of Vizagapatam town. A special cloth called poonjam is manufactured chiefly at the villages of Ankapully, Payakarowpettah, Nakkapilly, and Toony and other minor villages adjacent to them, and a profitable trade in this commodity is carried on. The term poonjam means 120 threads; and the cloth is denominated 10, 12, 14, up to 40 poonjam, according to the number of times 120 threads are contained in the warp. The brown poonjam, intended for exportation to foreign countries, is of a heavier texture, and is usually dyed with indigo at Madras before being exported. Cloth woven at Vizagapatam and Chicacole, and exported from this district, is in much request at Madras and throughout the south. Table-cloths, towels, and dunghries are also manufactured in the district. The town of Vizagapatam is celebrated for ornamental articles made of ivory, buffalo-horn, porcupine quills, and silver. Work-boxes, chess-boards, card-cases, and every variety of articles of vertu for the drawing-room are made out of these materials, and are reckoned among the purest of the native manufactures in India. The total value of the sea-borne

export trade of the district for 1883-84 was Rupees 54,00,000 and that of the import trade, Rupees 27,00,000. The exports consist chiefly of piece-goods, seeds, hides, horns, sugar; the imports of stores from Madras; raw cotton, twist, and thread, metals, saltpetre, and gunnies from Calcutta; and teak from Moulmein. The chief articles brought from the hills into the low country are iron from Jeypore, horns for ornamental work, bees' wax, honey, and other jungle products. Much has been done in the matter of roads by Local and Municipal Boards. All the important places in the low country are now connected by first or second class roads; some progress has also been done towards the construction of village roads. The Jeypore country has also received attention of late years in this respect. The new Pottinghy ghaut road from the foot of the ghaut to Koraputt, the head-quarters of the Special Assistant Agent, has now been completed and is open to wheeled traffic. A few minor roads have also been constructed. The cost of roads in the country above the ghauts has been met from provincial funds, supplemented by an annual contribution of Rupees 4,000 from the Maharajah of Jeypore.

9. *Medical.*—From the conformation of the district, it naturally follows that there are great varieties of climate. Along the coast, the air is soft and relaxing, the prevailing winds being south-easterly. Land winds are very rarely experienced. A few miles inland, the climate becomes drier and hotter like that of the more southern districts. Above the ghauts, the nights are generally cool, and in the cold weather a fire even is agreeable. The monsoon is very heavy and the climate malarious. The annual rainfall at Vizagapatam averages 33 inches. The most prevalent disease is malarious fever. No portion of the district can be said to be entirely free from it, though it appears only in a mild form along the coast; but in the hill tracts it assumes the type known as jungle or bilious remittent fever, and its effects are unfortunately often felt for years after the first attack. Change of climate is the only effectual remedy. Both cholera and small-pox are very prevalent. Beriberi is endemic in the plains, especially where the country is damp and swampy. Leprosy and elephantiasis are common near the coast; but, on the whole, Vizagapatam is a favourite district, being easily accessible by sea and generally favourable to the European constitution.

10. *General Administration.*—The total revenue of the district in 1883-84 was Rupees 27,16,109. The sources of revenue are land revenue, abkarry, opium, salt, customs, stamps, and assessed taxes. The land revenue contributes Rupees 1,409,999, of which nearly Rupees 10,00,000 is paid by the zemindars as their peshcush or permanent assessment, the Maharajah of Vizianagram alone contributing one-half of this amount. In seasonable years, the ryotwarry talooks bring in something over Rupees 2,00,000. There are both regular and extraordinary legal tribunals in Vizagapatam. In 1837, after the disturbances in the hill country, the territories of the zemindars in that part of the district were exempted from the jurisdiction of the ordinary courts, and placed exclusively under the Collector, in whom was vested the entire administration of civil and criminal justice, with the title of Agent to the Governor of Fort St. George. The portion of the district not included in the Agency was subordinated in judicial matters to the Civil and Sessions Judge of Chicacole, with a subordinate court at Vizagapatam, and a district moonsif at Rayavaram. This arrangement lasted until 1863, when the jurisdiction of the various courts was re-adjusted, the circumstances of this district and Ganjam having changed, and the tranquillity of both having been assured. A new Civil and Sessions Court was established at Vizagapatam, and the Vizianagram and Bobbily zemindarries, with Palcondah, were placed under its jurisdiction. On 1st January 1865, a further contraction of the limits of the Agency was effected in consideration of the heavy additional duties devolving on the Collector by the direct charge of the large zemindarry of Jeypore which had been assumed just two years before. The Agency at present consists of Jeypore, with those portions of the zemindarries of Madgole, Pachipenta, Cooroopaum, and Merangy which lie within the hills, and the hill mootahs of Palcondah and Golcondah, and the hill zemindarry of Causipore. Six moonsifs' courts are now subordinate to the district court. These are located at Yellamanchily, Vizagapatam, Bimlipatam, Vizianagram, Rajam, and Parvatipore. The criminal work both of the Sessions Court and of the Agency is very heavy. Among the lawless and wild population of the hills, murder is common, and this is the principal serious crime in the district. Vizagapatam is divided into two districts for police purposes—Vizagapatam and Jeypore. The entire police force consists of 1,627 constables, 33 inspectors, and 5 European officers, showing, on an average, 2 policemen to every 3,000 inhabitants and to every 22 square miles of country. The entire cost of the force averages one-and-half annas per head of the population. In 1862 the regular police system was introduced into Jeypore. Much tact and circumspection were required at first, as the Rajah was naturally jealous of the change and the people were suspicious; but it has now taken firm root in that region. A large proportion of low-country men were employed in the first instance, but natives of the hills have since been engaged in greater numbers, the climate having proved most prejudicial to the health of strangers. The only occasions on which the police have been brought into collision with the people have been the petty insurrections in the Sowrah country in August 1864 and December 1865 and the more recent Rumpa rebellion. The jail is situated in a healthy locality outside the town of Vizagapatam. It is intended to hold 172 prisoners, those who are condemned to sentences for long terms being sent to the central jail at Rajahmundry. Hillmen are sent to the new prison at Parvatipore, which was built to hold 100 men. The mortality in this class when they were confined in a jail near the coast had been most deplorable. Education has made a good deal of progress of recent years. The total number of schools in the district was 828 with 19,254 pupils, or 7·7 pupils to every 1,000 of the population against 3·9 in 1876. Of these 1 is a first-class college teaching up to the B.A. standard at Vizianagram, which is entirely maintained by the Maharajah of Vizianagram; 1 a second-class college at Vizagapatam teaching up to the F.A. standard and supported partly by Government and partly by local contributions; 3 high schools, 11 middle schools, and 812 elementary schools. There are also 3 normal schools—one at Vizagapatam, one at Palcondah, and the third at Yellamanchily for training teachers for elementary schools. Nine schools for the education of girls also exist at Vizianagram, Vizagapatam, Bimlipatam, Ankapully and Narsapatam. The Maharajah of Vizianagram maintains an industrial school and a Sanscrit seminary at his head-quarters. A night school for imparting elementary education to the labouring classes was recently started at Vizagapatam by certain young men and is at present entirely supported by voluntary subscriptions, no fees being levied from the pupils. There are four municipalities in the district, namely, Vizagapatam town, Bimlipatam, Vizianagram and Ankapully. Vizagapatam includes the suburb of Waltair, where the European inhabitants chiefly reside. It extends about three miles along the coast, and the climate is more salubrious than at Vizagapatam itself, near which there is a large marsh. A commodious public hall exists at Vizagapatam; a library, a reading-room, and a native association being connected with it. There is an excellent hospital and dispensary, which has received munificent support from the Maharajah of Vizianagram. Adjoining the hospital is a poor-house, &c.; further on a lunatic asylum, maintained by Government. The municipal income for 1882-83 was Rupees 64,059. Bimlipatam, one of the most important commercial towns on the coast, has improved wonderfully in every way during the last few years. Several English and French firms are established there; and it is one of the ports at which, with Vizagapatam, the British Steam Navigation Company's steamers touch on their way to and from Calcutta and Burmah. The tonnage that entered the port increased from 10,701 tons in 1852-53 to 83,760 tons in 1865-66 and 264,866 in 1883-84. The municipal receipts were Rupees 31,174 in 1882-83. Bimlipatam can boast of a hospital, a church, a school-house, a reading-room, and a town clock. A regiment of native infantry is stationed at Vizianagram.

VIZIANAGRAM.

[*For description of this zemindarry, see foot-note in article on Zemindarries, Chapter I.*]

WELLINGTON.

Description.—The station of Wellington, which is the convalescent depôt for the British troops in this Presidency, is in the Paranginaud division of the Neilgherry district, and lies in lat. 11° 5' N., and long. 77° 5' E., with an area of 446 acres or nearly two square miles, and a native population of 1,567. It is 6,100 feet above sea-level and situated on a spur running to the south-east from the Dodabetta range. It is well sheltered and only partially exposed to the monsoons. Wellington lies to the north-west of Coonoor on the ridges lying between the western

and middle streams, which meet at the old Coonoor bridge. The native bazaars however, with the office of the Cantonment Magistrate and the Police Station, lie on the right bank of the western stream, across which a suspension bridge has been thrown at a spot a short way above the bazaar. The hills and ravines in the cantonment were formerly bare of forest. The defect however has been remedied, especially in the neighbourhood of the barracks by plantations of Australian eucalypti. The climate is probably superior to that of Coonoor, the ghaut mists ordinarily not extending in this direction. The railway station is the same as for Ootacamund, viz., Mettapolliem. Troops coming to Wellington halt at the railway station during the day. The married portion and baggage-guard leave in the evening and come up the long ghaut, a distance of 24 miles. The remainder leave at mid-night and come up the short ghaut, a distance of 18 miles. The barracks are in a slight hollow bounded by high mountains and extensive ravines. They were built in 1852 and 1853. The station was then called Jackatalla, after a neighbouring Badagah village. The barracks consist of six blocks of double-storied masonry buildings, enclosing a parallelogram. Besides these there are the married quarters, consisting of four ranges of double-storied buildings. The duties of the troops, which are light and conducive to health, consist of short parades, route-marches, inspections, and fatigue duties. There are a number of private residences. The soil in and about Wellington is a rich red ferruginous marl or clay, with syenite in many places. Vegetables and fruit of all kinds grow luxuriantly. The warmest month is May with a mean temperature of 66·4, and the coldest December with a mean temperature of 57·5. The average annual rainfall is 46·75 inches. The climate at Wellington is very salubrious and invigorating. The thermometer seldom rises in the shade above 75°. The intersecting valleys however contain jungle where malarious fever may be contracted, and should therefore be avoided, especially after sunset. The climate is particularly suitable to those who are suffering from ordinary depression or debility resulting from the heat of the plains. Those suffering from wounds, injuries, abscesses, scrofula, or malarious fever also do well. Owing to the elevation, the climate is unsuited for valvular disease of the heart, or developed disease of the lungs, and also for diseases of the liver and kidneys.

WYNAUD.

Description.—This Balaghaut ("above-ghaut") talook, lying between 11° 27′ and 11° 58′ N. lat., and between 75° 50′ 45″ and 76° 41′ E. long., forms part of the tableland of Mysore. It consists of sixteen amshoms or parishes (of which thirteen belong to the Malabar and three to the Neilgherry district), bounded on the north by Coorg and Mysore territory; on the east by the Neilgherries; on the south and west by the Yernaud, Calicut, Cooroombranaud and Cottayam talooks of Malabar. Area 1,239 square miles; population (in 1881) 113,531 occupying 13,041 houses.

2. *Physical Geography.*—Wynaud ("upper-country") is, as its name denotes, an elevated plateau. It is an exceedingly picturesque country; oval in shape, rising abruptly from the Western Ghauts, but sloping gently towards the north-east. The country is rugged and broken, and the summits of the hills, rising considerably above the general level, give to the western and southern parts a wild and mountainous appearance. The central portions consist of ranges of low hills of easy slopes, covered with grass and low bamboo jungle, while the eastern parts are fairly open and flat and merge insensibly into the tableland of Mysore. The Neilgherry-Coondah range abuts on the south-east corner of the talook which the Brahmagherry Hills on the north separate from Coorg. The average height of the plateau above sea-level is 3,000 feet, though many of the mountain peaks are over 5,000 feet; e.g., Vauvoolmulla (Camel's Hump), the highest peak in the talook, is 7,677 feet; Vellirimulla, 7,364 feet; Balasoor, 6,762 feet; and Brahmagherry Peak, 5,276 feet. The principal rocks are gneisses, granites, and other forms of metamorphic rocks, which are traversed by numerous quartz reefs, frequently auriferous, especially in the south-east part of the talook. The gold in these reefs, which are almost invariably white at the outcrop, is generally fine, though the finest gold is alluvial. Invisible gold occurs with pyrolusite. The gneisses are commonly felspathic quartzose varieties of white or grey colours with an extraordinary tendency to weather and decompose into white, yellow or reddish felspathic clays or clayey rocks known as laterite. On this fact, among others, is based the opinion of geologists that the present surface of Wynaud has only been exposed after a slow wearing away of over two thousand feet of superincumbent gneiss which was once contiguous between the Neilgherries and the Vellirimulla range. The soils resulting from this long-continued process of denudation are of great fertility and are roughly classified by the natives of the country into:—(1) Pashima = a deep, clayey soil; (2) Pashima raushy = loam, with an admixture of sand; and (3) raushy = sandy soil; to which should be added the rich "black mould" formed by the decomposition of vegetable matter. Numerous streams descend from the hills and wind along the valleys, the most important rivers being:—(1) the Cubbany, which, with its tributaries, drains nearly the whole of North and South Wynaud; (2) the Rampore, which drains a large portion of South-East Wynaud, eventually flowing into the Cubbany; (3) the Moyaur, which drains part of the Numbalagode Amshom; and (4) the Chola, which falls in a magnificent cataract from the crest of the hills close to the Cholaudy pass; joining the "Gold river" in the Nilamboor teak plantations, whence they flow as the "Beypore river" to their outlet into the sea at Beypore. The influence of the south-west monsoon is especially felt in the western and southern amshoms, the average rainfall for the whole area in the year being 150 inches. From November to January the climate is fairly dry, cool and salubrious; from February to June hot land winds blow and fever is prevalent; from June to October, rainfalls, with short intermissions and though the temperature is lower and fever less general than in the preceding four months, dysentery, diarrhœa and rheumatism are common.

3. *History.*—The early history of Wynaud is involved in obscurity; but about the end of the seventh century Numbootiries (Vedic Brahmins) were settled in Kerala which was ruled by military chieftains deputed by the neighbouring Pandyan kings. These chieftains appear to have been regularly changed every twelve years until at length (about the ninth century) Cherma Permaul, the last Pandyan deputy, was enabled to confirm his own authority over the whole of Kerala and to set at defiance that of his late superior Raja Krishna Row. The political organization of the country at this period was formed on a purely military basis. At the head of the state was the Kon Chakravurty or Permaul. The state was divided into (a) Nauds, (b) Anjoovanams, and (c) Manigraumams. The Nayar chieftains (Oodiyauvar) who ruled the Nauds were responsible to the Permaul for the protection of all persons within their Nauds, whence they were called "Kanakar" = supervisors or "protectors." Similarly the Jewish and Syrian headmen who ruled the Anjoovanams and Manigraumams respectively were responsible for the protection of all persons within their jurisdiction. These Nayar rulers, and Jewish and Syrian headmen, and the headmen of the Panayoor (Veishnavite) Brahmins and of the Chovoor (Shiveite) Brahmins appear to have held quasi-royal rank. Subordinate guilds, for instance, those of the Dweepar or Teeyar ("islanders") and Vellalar (agriculturists) were directly controlled by their headmen. Chieftains and headmen alike enjoyed various privileges, which, in the course of time, came to be regarded in the light of rights; but the supreme right known up to the eighteenth century as the "Neerattipair" = "water-contract-birthright" and subsequently as the janmam (the birthright) vested in the Permaul. He alone could bestow this right in the exercise of his prerogative as a ruler. Cherma Permaul, becoming a convert to Islam and being anxious to visit Arabia, partitioned the kingdom into petty principalities, and, having conferred regal honours on the rulers of each, started on his travels in the year 827 and died at Zabhar in 831. Of the States thus originated in the northern division of Kerala, the most important was that of Colatoonaud in which the Colattiry or Chiracal family was regarded as the superior. This domain originally consisted of the thirty-six modern amshoms of the modern talook of Chiracal and of the Cottayam territory which included the whole of Wynaud besides Palassy or Pychee and fifteen other amshoms of the modern talook of Cottayam. The Cotiote Rajahs—also styled Pooranaud, i.e., "foreign" or Cshatriya Rajahs—received this territory from the Colattiry ruler. It is unnecessary to record the many vicissitudes of the Cotiote house during the long period that elapsed from its founda-

tion to the British occupation of Malabar in 1792. During the interval, Mussalman, Portuguese, and Dutch influences had been at work. Cottayam had, like many another Raj, been for years presided over by Coorvaulchas "joint rulers" members of the ruling house, who shared the regal power with the eldest male—each member ruling in his particular division of the Raj. Under each Coorvaulcha a number of hereditary Naudvaulies (military commanders) kept order in their Nauds, whilst Deshavaulies (military captains) were held responsible for the management of their Deshoms (villages). On the cession of Malabar to the British under the terms of the treaty of peace concluded at Seringapatam on the 18th March 1792, between Lord Cornwallis and Tippoo Sultan, the Cottayam family consisted of three branches, viz., (a) Kilakka Covilagam = Eastern Division; (b) Padinyara Covilagam = Western Division; and (c) Tekka Covilagam = Southern Division. The head of the house was Veera Vurmah, commonly called the Cooroombranaud Rajah; but its most celebrated member was Kerala Vurmah Rajah who belonged to the Western branch, located in the Pychee) amshom of the Cottayam talook. This junior Coorvaulcha, then only fifth or sixth in the line of succession to the Cottayam Raj, was the person known as the "Pychee rebel." The principal facts connected with Kerala Vurmah's chequered career were briefly as follows. In 1766, Hyder's hordes were devastating Malabar. There was no security for life or property in the Cottayam country. Its rulers had fled for safety to Travancore where the child Kerala Vurmah was living with his relations. In 1780, on the outbreak of the second Mysore war, Ravivarma, then senior Rajah of the Cotiote family, returned with his nephew Kerala Vurmah from Travancore to assist the beleagured English factors at the siege of Tellicherry. Both took an active part in the defence and remained throughout the siege in the town with their contingent of 2,000 Nayars. In 1784 a temporary cessation of hostilities was secured by the treaty of Mangalore concluded between Lord Macartney and Tippoo. The Mysoreans entered into terms with Ravivarma, though they continued to occupy the most fertile portions of Cottayam. In 1786 Tippoo exacted from Ravivarma, who had proceeded to Coorg to meet him, a written deed of relinquishment of the Wynaud, which in 1787 was registered as "a dependency on the cutcherry of Seringapatam under the name of Chucloor." Kerala Vurmah, to whose branch of the family Wynaud peculiarly belonged, repudiated the action of his uncle Ravivarma and was actively engaged in independent operations against the Mysoreans from 1787 to the beginning of the third Mysore war (1790). On the 4th May 1790 negotiations were entered into with the Pychee Rajah by Robert Taylor, "Chief for transacting all affairs of the English nation at Tellicherry," with a view to joint operations being taken by the British and Kerala Vurmah against Tippoo. These operations were concluded by the treaty of peace of the 18th March 1792, when Malabar was placed under the Government of Bombay. One of the first acts of that Government was to reinstate the various Coorvaulchas on their former footing and to make definite arrangements with each regarding the payment of revenue. Kerala Vurmah, however, refused to enter into any such negotiations and finally rebelled. From 1792 to 1798 Wynaud was regarded as an "equivocal possession," regard being had to the circumstances of its annexation in 1786; but Lord Morington on the 3rd September 1786 declared by proclamation that in his opinion "Wynaud was not ceded to the Company by the late (1792) treaty of peace, and that it belongs by right to His Highness the Nawab Tippoo Sultan Bahaudur." By the partition treaty dated 13th July 1799, Wynaud was formally ceded to the Company under one name, and under another, viz., Ahmednugger Chicloor, to the young Rajah of Mysore. Though allotted to both parties, the Company stood alone in possession, as the supplementary treaty, dated 29th December 1803, whereby the Rajah resigned all claim to the tract, clearly proved, whilst by order of the Governor-General in Council, dated 26th May 1800, Malabar (including Wynaud) was placed under the Government of Madras from 1st June 1800. From this date to 1805 the Pychee Rajah was in open rebellion against the authority of the Company, though with few intermissions, when for various reasons his previous offences were condoned. Martial law was declared in 1801, and on the 16th June 1805 Lieutenant-Colonel MacLeod offered rewards for the apprehension of the Pychee Rajah and eleven of his principal adherents, and "also made known that all the estates and property belonging to the described rebels is confiscated from this date." The Pychee rebel and five of his followers were killed on the 30th November 1805. The sentence of forfeiture pronounced on the 16th June 1805 has never been effectively carried out, though from time to time attempts have been made to ascertain the exact limits of the "Pychee escheats" with a view to the assertion of the rights of the State therein. The consequence has been that many of the lands in Wynaud — the janmam property of the Pychee rebels and therefore the property of the State by forfeiture — have been usurped by fictitious jenmies whose claims are now being investigated. The decisions arrived at in the various claims preferred and investigated will be carried out at the new Revenue Settlement of the tract about to be commenced.

4. *Jurisdiction.*—The sixteen amshoms of the talook were, until 1877, part of the Malabar district, the head-quarters being Manantoddy, where the Deputy Collector is located. On the 31st March 1877, three amshoms, viz., Numbalagode, Moonnanaud and Cherangode, were transferred to the Neilgherry district and placed under a Head Assistant Collector, whose head-quarters are at Devalah. The remaining thirteen amshoms still form part of the Malabar district. The principal subordinate Judicial and Revenue offices are located at Goodalore (1 Deputy Tahsildar and District Moonsif, appeals from whose civil decisions lie to the District Court of Coimbatore); Manantoddy (1 Tahsildar and Sub-Magistrate); and Vythery (1 Deputy Tahsildar and Sub-Magistrate and 1 Moonsif). Civil appeals from the District Moonsif of Vythery lie to the District Courts of South and North Malabar. Police stations and Post offices are located at Goodalore, Devalah, Nelacottah, Cherambaudy, Sultan's Battery, Manantoddy, Vythery, Culpetta, Meppaudy and Terriot, and Telegraph offices at Devalah and Vythery.

5. *Flora and Fauna.*—These are exceedingly rich and varied. The forests are among the finest in the Presidency, and probably in India; containing, among many other valuable kinds of timber, the following:—Tectona grandis, Dalbergia latifolia, Pterocarpus marsupium, Diospyros ebenum, Terminalia chebula, Artocarpus hirsuta, Michelia champaca, Grewia tiliæfolia, Lagerstrœmia microcarpa. The teak belt lies along the northern and north-eastern frontier of the talook—the most important areas being the Moodoomullay, Benny, Transbenny, Chedlet, Padry, Coodiracote, Begoor, Perja, Chappauram and Pamijatta; all of which (with the exception of the first-mentioned which is held on lease from the Nilamboor Tiroomulpaud) have been proposed to be constituted "Reserved Forests" under the Madras Forest Act. Benny, Trans-benny, Chedlet and Begoor are "Reserved Forests," and the remaining will probably be similarly constituted in a few months. Wynaud has long been famous for its pepper and cardamoms, both of which grow wild. Since 1840 the cultivation of coffee has occupied the attention of planters, British, French and Dutch, many of whom, however, chiefly through ignorance of the best methods of cultivation and want of sufficient capital and partly from other causes, have been obliged to abandon their estates—once splendid forest, but now covered with worthless Lantana. On one estate—the "Glenrock"—in South-East Wynaud, attention is being devoted to the cultivation of fibres—foreign and indigenous—and the growth of the fibres planted, especially the Rhœa, has so far been highly satisfactory. Wild animals include elephant, bison, sambur, spotted deer, tiger, panther, hog and bear, besides a great variety of small game.

6. *Agriculture and Revenue*:—The following table gives details of the most important items of revenue and shows the approximate area of lands—"wet," "dry" and "garden"—under cultivation:—

Particulars.	Approximate area under cultivation.	Revenue.
	ACRES.	RS.
Wet cultivation	26,975	38,832
Dry do.	4,151	5,280
Garden cultivation, including lands under coffee, cinchona, &c.	32,357	69,158
Forests	......	35,000
Excise on spirits and drugs ...	......	90,962
Stamps	......	19,548
Registration	......	3,140
Post and Telegraph receipts.	......	1,35,880
Local Fund	......	22,840
Grand Total ...	......	4,20,640

YELAGHERRIES.

Description.—This is an isolated block of hills in the Tripatore talook of the Salem district, lying between 12° 31′ 20″ and 12° 37′ 49″ N. lat., and between 78° 39′ 20″ and 78° 45′ 30″ E. long., with a base area of about 32 square miles; average height above sea-level, 3,500 feet; highest point Sawmymullay 4,437 feet. The plateau, or basin at the top, comprises about ten square miles, and contains six Malayaly villages, with a population of 1,660, cultivating wheat, millet, mustard, and raggy. These Malayalies are similar to those inhabiting the Jawaudies. The summit of the hill is pierced to the south-east by a very remarkable cleft in the solid rock, due to the action of water. On the hill is a remarkable monolith consisting of a huge mass of gneiss, poised on two or three large boulders at its eastern end. Its total weight has been calculated to be 3,223 tons, of which 1,311 tons are suspended in mid-air. Stone implements have been discovered in quantities. The soil is fertile on the top, and but for the small extent of available land, the higher portions of these hills would be admirably adapted for coffee and other planting enterprises. The climate of these hills has a bad name for fever, but apparently in error, for they are not more unhealthy than other hills of the same altitude. The forests on these hills have been much exhausted (especially on the slopes) by timber and fuel contractors for the neighbouring railway and large towns of Vaniyambaudy and Tripatore. Round the base and summit however of Sawmymullay (the highest point and protected by its sacred reputation) there is a large area of virgin and evergreen forest, full of luxuriant growth and large timber. The total beriz or revenue paid by the villages for fusly 1284 was Rupees 1,657-14-2, consisting of land assessment and road fund, Rupees 1,608-14-2, and tamarind rent, Rupees 49.

YERCAUD.

Description.—This is the principal and oldest station in the Shevaroy Hills, Salem district; lat. 11° 51′ 38″ N., long. 78° 13′ 5″ E.; elevation, 4,828 feet above sea-level. It is so named from the sacred grove near the lake, the name signifying "lakewood." The population in 1881 was 1,338. There are about 60 or 70 European and Eurasian inhabitants, but in the hot weather this number is greatly increased by visitors from Madras and Salem. The distance from Salem is 12 miles, and from Shevaroy Hills railway station 10 miles. The climate is mild and pleasant, averaging about 14° F. less than on the plains. At a certain time of the year, fever of a mild type prevails. The station contains a Protestant Church, Roman Catholic Chapel, a Dissenter's Meeting-house, and a Chapel of the Lutheran Evangelical Mission. There is a hotel, a cutcherry, post office, library, jail, hospital, and police-lines. The Deputy Tahsildar in charge of the hills lives at Yercaud. Nearly all the land in the vicinity is occupied.

APPENDIX No. XIII.

COAST SURVEY OF THE PRESIDENCY, FROM WEST TO EAST.

INTRODUCTION.—The capital headings in the following paragraphs show the principal points along the coast.

SHIROOR, in lat. 13° 56′ N., long. 74° 35′ E., is now an insignificant place, but its ruins point it out as having been once a large town. It is the northernmost port under this Government. It is 3 or 4 miles to south-east of Bhatcal, and a little way to the east of Huddy Point. Huddy Point is 5½ miles north-west by north of Beidoor Head. The space between them is studded with dangerous rocks. One white rock, just above water, bears S.W. by S. 2¼ miles from Huddy Point, and 2 miles south of the single rock are two white rocks close together above water. Between these and Beidoor Head and south of that headland there are numerous others, which, extending out to the depth of 7 fathoms water, make this coast unsafe to approach under 10 fathoms. Beidoor river and town are on the east side of Beidoor Head, which is a piece of tableland jutting into the sea, and running back for some distance inland. The river is only fit for small boats, and the scattered rocks off it make it unsafe to approach. From the Coondapore Sandy Point, which is 3 miles north-west by north of that river mouth, and was formerly called Barsalore Point, the sandy coast runs N. by W. ¼ W. 12 miles to Beidoor Head; at 5 miles south of which there are some dangerous rocks awash, in 6 and 7 fathoms at low water, situated 3 miles from the shore. To the west and north-west of Beidoor are other rocks in even deeper water, which render this part of the coast dangerous, and it is prudent to give them a wide berth. The land near this part of the coast shows in detached pieces of tableland, most easily recognised as such in the morning, when the mist hangs in the valleys. Scattered here and there are small round hills of about equal height. The mountains of Bednore or Nugger come close to the sea about here, being only 6 miles off, and have some peaks more than 3,000 feet high; Yeljita Goodda, the south one, 2,950 feet above the sea, is a sharp peak, at 7 miles to east of Beidoor Head, and very conspicuous to a vessel coming from the north. Barsalore Peak is a round mountain, 3,600 feet above, and 9 miles from the sea; but having the high chain of the Bednore mountains for its base, does not show much above them, except at a distance from land. Colloor Goodda, or Codasahyadry Parwat, 4,400 feet above the level of the sea, is a fine sugar-loaf peak, 17 miles north-east ½ north of Coondapore. It was styled by early navigators false Barsalore Peak, from the fact of its being frequently mistaken for the peak of that name, which is 8 miles farther to the west-north-west, and only visible at a great distance from land; for other peaks, intervening between it and the sea, hide Barsalore Peak, whereas Colloor Goodda is distinct, being perfectly isolated, but it disappears behind the others when bearing to the south of east. From Mangalore to Coondapore the whole coast is sandy, with cocoanut trees, with the exception of Soortacull little rocky point, and the Caup battery rocks; at the back of the trees the hills rise gradually towards the base of the mountains.

COONDAPORE RIVER, in lat. 13° 38′ N., long. 74° 39′ E., lies to the south-south-east of Barsalore Point, and is 18 miles north of Deria Bahaudur Ghur. It is now a place of considerable trade. A reef of rocks, on which the sea breaks, lies at 2 miles to the west of the river entrance. The rocks off it afford a little shelter to small coasters from north-westers, but these vessels generally run into the river at high water. At the distance of 2 miles north-north-west of the entrance is a small rocky point; and 1 mile (further north-west is a sandy cape (formerly called Barsalore Point), off both of which patches of rocks extend into 5 fathoms water. This river is only navigable by boats and small vessels; and the shore here should not be approached under 9 fathoms in a large ship. Barcore, called also Hangarcutta, is a small river port, about mid-way between Coondapore and Deria Bahaudur Ghur.

THE ST. MARY ISLES extend from lat. 13° 27′ to 13° 20′ N., the outermost of the range being 2½ miles distant from the shore, with a channel with 2 and 3 fathoms irregular soundings between them and the main, but safe only for boats. Some of them may be seen 3 or 3½ leagues from the deck; the others are low, nearly even with the water's edge. They are in one with Barsalore Peak bearing N. by E. ½ E., and some of them are long, flat islets, particularly the southernmost. Deria Bahaudur Ghur, in lat. 13° 20′ N., long. 74° 41′ E., about 18 miles to the south by east of Coondapore, and bearing N. by E. 8½ miles from Moolky Rocks, is the highest and middle one of the three islands generally called St. Mary's Isles, and its highest part is 70 feet above the sea. These islands are basaltic, and in some parts have long grass and creepers. The north, a separate island, which is nearly 3 miles north-north-west of Deria Bahaudur Ghur, has cocoanut trees on it, and water is obtainable by digging. There are rocks midway between these islands, and scattered about to the north of them. Rocks awash extend 1 mile to west of the cocoanut island, and another patch at the distance of 2 miles north-west of it; whilst to the north there are other rocks until abreast of Barcore River. A ship should not approach this part under 8 fathoms by day, in working up the coast, or 12 fathoms by night; in running down coast, it is prudent not to come under 15 fathoms. To small coasting vessels excellent shelter is afforded from north-west winds between Deria Bahaudur Ghur and the sandy shore abreast; the passage in is close round the south end of these three islands, and the anchorage is in 3 fathoms at lower water, sand and mud bottom, with the highest part of Deria bearing north-west. The sandy shore abreast of these isles is the point of Malpe river, inside of which stands the little port of Oodiyauvar, not far from the town of Oodipy, one of the German missionary stations, numerous along this coast.

THE MOOLKY OR PRIMEIRA ROCKS, in lat. 13° 12′ N., long. 74° 40′ E. (nearly 3 leagues to the south of Deria Bahaudur Ghur), bear from Mangalore light-house N.N.W ½ W. 22 miles; they are situated 4 miles from the mainland, are of black basalt, elevated in parts 40 feet above the sea, and may be seen 9 or 10 miles from a ship's deck. On their east side the bottom is sand and broken shells, which is not good holding-ground, otherwise a vessel in extremity might anchor to leeward of them in a west gale. The channel between them and the main is perfectly safe, but contracted to a breadth of 2 miles on the north by the Caup Rocks, which are above and below water, 3 miles to the north-east of the Primeira; and there is a detached rock out in 4 fathoms 3 miles due east of them, off the small hill of Ootchila Goodda, which hill is on the shore 20 miles north by west ½ west from Mangalore light-house. Caup Battery, 2 miles north by west of Ootchila, is an old rock fortification on the sandy shore, and from this the outermost Caup Rocks bear W. by N. 1½ miles. There is an old temple, called Coonjaur Goodda, within a fort on an isolated hill, 280 feet high, a good landmark, 4 miles north-east of Caup Battery. At the distance of 4 miles north by east from the Moolky Rocks, is a patch of dangerous rocks awash; they lie out in 5 fathoms, with Coonjaur Goodda bearing east, and they are 1½ miles to the south-west of a solitary black rock standing out of the water, mid-way between Caup Rocks and the south islet of the Deria Bahaudur Ghur group.

MANGALORE, or Codiyaul Bunder, in lat. 12° 52′ N., long. 74° 49½′ E., is the chief town in the province of Canara, and a place of large trade. The light-house is on high ground, 1½ miles east-north-east of the river entrance, and 240 feet above the sea. The town is very large, and on the north and east side of the river, which is navigable for boats for many miles up to Buntwaul, a large town. The bar has only 6 or 7 feet on it at low spring tides, so that only small vessels can enter; Arab vessels of 150 tons manage to get in at high springs, but the larger Buggalahs which bring horses from the Persian Gulf, are compelled

to lie out in the roadstead. The houses and trees on the elevated plateau by Mangalore light-house unmistakably point it out. Barn Hill, 16 miles to south-east of it, is also a good mark. The Ass' Ears, or Conijadacull, 17 miles north-east of Mangalore, is a rugged, double-peaked hill, of limestone, 1,100 feet above the sea, rising almost vertically from the low country, but is in many views only just visible from sea-ward above the tops of intervening flat hills. Mount Hyder, or Coodireymookh (the horse's face), 30 miles north-east by east of Mangalore, is a magnificent peak, 6,000 feet above the sea, abruptly terminating on the south, when viewed from the west. It is the south-west extreme of the Nugger, or Bednore district, of the province of Mysore, and beyond it the ghauts recede much to the east; the hills at the back of Mangalore are undulating, and separated from each other by valleys through which rivers run from the mountains. A fixed dioptric fourth order light on a white tower is exhibited on the hill at the back of the town, at an elevation of 240 feet, and may be seen in clear weather 14 miles, but in the hazy weather of March and April only 10 or 11 miles. On the light-house hill there are houses and trees, which form conspicuous marks in the daytime. It is high water on full and change between 10 and 11 hours; ordinary springs rise 6 feet, neaps 3 and 4 feet. Night tides are higher than day tides in the fine season. The most convenient anchorage for communicating with the river is with the light-house east-north-east to north-east in 4½ fathoms low water, muddy bottom. In case of a north-wester (which breezes prevail here in the afternoon between February and May), boats can conveniently come at high water out of the Gooroopoora mouth, 2 miles north of the Mangalore entrance. Approaching Mangalore from the north, caution is necessary to avoid the St. Mary's Isles and Moolky Rocks, the latter being in the line of 9 fathoms. It must be also remembered that this is a projecting part of the coast. The bank on which a ship may get soundings extends nearly 40 miles of Mangalore; there being a depth of 10 fathoms at 4 miles off shore, 20 fathoms at 10 miles, and 30 fathoms at 18 miles, all muddy bottom, between Mangalore and Mount Delly. Above the latitude of Mangalore these depths are found much further off shore. Abreast of Barcore and Coondapore, 30 fathoms, is found more than 30 miles from land, and soundings of between 20 and 30 fathoms occupy a flat, 17 miles broad east and west, between the latitudes of St. Mary's Isles and Pigeon Island. At depths greater than 30 fathoms on this part of the coast the bottom is generally sand or rock. Soortacull is a small point with a temple on it, about 150 feet above the sea, bearing north by west 9 miles from Mangalore river mouth. The intermediate shore is straight, sandy, and planted with cocoanut trees. Moolky River entrance is 4 miles to north of Soortacull, on the same bearing, and is nearly 10 miles to south-east of the Primeira or Moolky Rocks. From Mangalore, the direction of the coast is south-south-east 18 leagues to Mount Delly; the land near the sea is generally low and woody, particularly to the south of Barn Hill, or Posody Goompey, which is a sloping mount, nearly level on the summit, 1,000 feet high, situated a little inland, in lat. 12° 40½′ N., long. 75° 0′ E., and 5¼ leagues distant on a south-east bearing from Mangalore. About 7 leagues to the south of this hill, at nearly an equal distance from Mount Delly, 3 miles inland, stands another mount, in lat. 12° 23′ N., 500 feet high, called Mount Formosa. There are other hills farther from the sea, and 2,800 feet above level of the sea. In passing along this part of the coast there is no danger, the depths decreasing regularly towards the shore to 7 or 8 fathoms about 3 miles. off. A ship in working may stand in to 7 or 8 fathoms, soft ground, when the weather is fine. Between Mangalore and Beycull, there are three considerable streams, Manjeshwar, Coombla, and Cassergode, all reckoned among the minor ports of Madras. The bars of these rivers change every year, and a native pilot is necessary.

Beycull Fort, in lat. 12° 23′ N., long. 75° 1′ E., covering the whole extent of a small promontory 130 feet high, bears from Delly little cape north-north-west 25 miles. There is a travellers' bungalow among trees to the north of the fort. Rather more than 1½ miles to north-west of this fort is a reef of rocks, on which the sea breaks, having 4 fathoms close to it. This reef is about ½ mile to the south-west of another little rocky cape. The coast from Beycull to Mangalore is all sand, fringed with cocoanut trees, with the exception of the little rocky points mentioned above. The land at the back rises gradually from the sea, until at 5 miles distance there is table-land nearly 400 feet high, intersected by rivers every 6th or 7th mile. To east of Beycull and Hosdroog, a spur of the ghauts, of considerable elevation, reaches towards the coast. To the north of this the highland recedes and is not often visible.

Cavvye River, in lat. 12° 5′ N., about 20 miles to south-south-east of Beycull, is a river which skirts round the north side of Delly highland, and is the real boundary of the provinces of Malabar and Canara. Its mouth is 4 miles north-north-west from Delly Fort Point. It runs parallel with the coast for 15 miles north, and is only available for small boats. The ancient city Neeleshwar was up this river. The coast north of Cavvye is a very straight sandy shore for 20 miles. At a distance of 5 miles from the sea there is a table-land, from 150 to 250 feet high. Nearly 20 miles north by west ¾ west from Delly Cape is the old fort of Hosdroog, on elevated ground, and close to it a travellers' bungalow, rather more than a mile from the shore, and about 150 feet above the sea. Two or 3 miles at the back of this is a wooded hill, 550 feet above the sea, which early navigators called Mount Formosa. It is the outermost detached hill of a spur which stretches west from the mountains of Coorg. Eastward of this hill are other conspicuous peaks, increasing in elevation as they near the ghauts, which in Coorg are 4,000 or 5,000 feet high, but seldom are visible from the sea, except in very clear weather.

Coast of Malabar.—This coast commences at Cavvye. Calicut is its chief town. The southern extreme of the British province of Malabar is just above Cranganore. It seems necessary to explain this; for navigators, being in the habit of calling the whole sea-board the Malabar Coast, from Bombay to Cape Comorin, are liable to be misunderstood by the natives and residents in India. The Malabar Coast in its southern portion, from Paliport to Beypore, is wholly devoid of conspicuous landmarks, being low and sandy, with cocoanut trees. Beypore, the terminus of the Madras Railway, has some little hills at its back, and above it to Mount Delly the coast is bolder, being composed of sandy bays, interrupted here and there by slightly-elevated rocky points. Mount Delly is a remarkable headland, 850 feet above the sea. It is in reality an island, though separated by only a narrow creek from the low and sandy ground which fills up the intervals between the headland and the laterite table-land of Payyangaudy. The latter is less than 100 feet in elevation at a distance of 2 miles from the mount, and gently rises towards the ghauts, but does not attain to the same elevation as Delly till 12 miles from it. The Coondah range of ghauts approach the sea between Tellicherry and Calicut, and are higher here than on any other part of the western coast. The highest and most remarkable, called the Camel's Hump, about 7,000 feet above the sea-level, stands in a north-easterly direction more than 20 miles from Calicut. The Wynaud range, at the back of Tellicherry, has several very conspicuous peaks, the most westerly standing prominently forward only 10 miles to the east of that seaport. To the north of them the highland recedes from the coast. The valley of the Belliapatam river fills the space to the mountains of Coorg, which, though of great elevation, are situated far from the sea, and only visible in very clear weather.

Mount Delly or D'Eli, the limit between the coasts of Canara and Malabar, is a conspicuous headland (850 feet high) and may be seen from a distance of 8 or 9 leagues in clear weather. The contiguous coast, being low and woody, is not seen far, which gives the mount the appearance of a high island, when viewed either from the north or south. The outer extreme of this headland terminates in the south-west bluff point, having on it a small ancient fort, of black aspect, situated in lat. 12° 0¼′ N., long. 75° 11½′ E. The shore here is bold and safe to approach, there being 7 and 8 fathoms at 2 miles distance; 20 and 22 fathoms at 2 or 2½ leagues distance; and at 15 leagues distance, abreast the mount, you lose soundings. This is the narrowest part of the channel between the main and Laccadive Islands, the distance being 28 leagues between Yeliculpeny Bank and Mount Delly. Abreast of this headland there is frequently a current to the south, and a short confused swell, the effect of brisk north-west winds, which greatly prevail here. The kingdom of Eli is mentioned as existing hereabouts by Marco Polo, who said that great Chinese vessels used to come to this bay before the twelfth century. The Portuguese gave to the hill the name of Monte d'Eli, from which comes the present name. Belliapatam river, is 6 miles to the south-east of Mount Delly. The coast between them, forming a bight, is low, covered with trees, safe to approach to 5 or 6 fathoms, in regular soundings, soft ground. This river extends a considerable way inland, and is the scene of some trade, although navigable only by boats or small vessels, there being from 1 to 2 fathoms water at the entrance, abreast of which ships may anchor in 3½, 4, or 5 fathoms, from 1 to 2 miles off shore.

Cannanore Fort flag-staff, in lat. 11° 51′ 20″ N., long. 75° 21′ 45″ E., bears from Mount Delly Fort south-east, ¼ east 14

miles, and is about 9 miles to the north-west of Tellicherry. The point is 2 cables' lengths west-south-west of the flag-staff, and has a reddish appearance. To the west of the fort are the British barracks, between which and the sea are three or four cocoanut trees overhanging the sea. To north of these are several houses amongst trees, on slightly elevated red cliffs, about 40 or 50 feet above the sea. To the north-north-east of the flag-staff is the English church, on elevated ground, and other houses and trees beyond. Nearly 3 miles north of the fort is the Collector's cutcherry, a thatched building, on elevated ground, 250 feet above the sea. The houses of Cannanore cantonment extend along the cliffs some distance north of the fort. Four-and-a-half miles north-west of it there is a projecting rocky point of elevated red land, with high cocoanut trees. And 3 miles farther north-west is the mouth of the Belliapatam river, down which excellent poon spars for ships' masts are brought. Between the above red point and the base of Mount Delly the sea-shore is low, sandy, and fringed with cocoanut trees; 3 or 4 miles further inland the country becomes hilly. There is backwater communication for boats from this river to Hosdroog, nearly 30 miles to the north, passing to the east of Mount Delly. Good water may be obtained from the wells on the beach to north-east of the fort. Fresh provisions and refreshments of various kinds and excellent fruit may be procured. There are Government Commissariat and Ordnance Departments at Cannanore. It is a large military station. A fixed red dioptric sixth order light, elevated 64 feet and visible 6 to 8 miles off, is shown from a small masonry tower of a light yellow colour erected on the ramparts of the fort at Cannanore. Vessels may anchor during the fine season in $5\frac{1}{2}$ to 6 fathoms with the flag-staff from N.E. by N. to N.E. by E., about $2\frac{1}{2}$ miles off shore. Large ships should be careful not to approach the point too close. The best anchorage is reported to be with flag-staff bearing N. by W. in 3 fathoms low water. Ships' boats can easily land in the bay to north-east of the fort. The custom-house is on the sandy beach, more than $\frac{1}{2}$ mile east of the fort. There are a few sunken rocks off Cannanore Point, but not outside of 4 fathoms. With a south or a south-west wind, a heavy swell prevents landing in Cannanore Bay.

TELLICHERRY (the flag-staff), in lat. 11° 44′ 50″ N., long. 75° 28′ E., bears south-east $\frac{1}{2}$ east from the fort on Mount Delly. It is 23 miles and 3 leagues to the south-east of Cannanore Point. The coast between Cannanore and Tellichery is safe to approach to 5 fathoms, but a large ship ought not to come under 7 fathoms in the night. It is rocky under 4 fathoms from Tellicherry to Green Island. The latter is a small island covered with trees, situated close to Dharmapatam Point, about 3 miles to the north of the anchorage, where two small rivers fall into the sea, having 4 or 5 feet water at the entrance, one of which goes up to Anjarcundy. The anchorage in the road is soft mud, in $5\frac{1}{4}$ or $5\frac{1}{2}$ fathoms, with the flag-staff bearing north-east by north, and Green Island north-north-west off the town 2 miles. Large ships touching here, or at other places on the coast, where there is a chance of unsettled weather, should anchor well out in 7 or 8 fathoms. The fleet having anchored in 5 and $5\frac{1}{2}$ fathoms, a heavy sea began to roll in, which made the 'Superb' strike on the 'Sultan's' anchor, she being moored inside. The land about Tellicherry and Cannanore appears rather low and barren near the sea. At a little distance from Tellicherry are the ghauts. From Mount Delly to Tellicherry the soundings are regular, 20 or 22 fathoms about 4 leagues off, and 30 to 34 fathoms 7 or 8 leagues off. Tellicherry flag-staff in the fort is 9 miles to south-east of Cannanore, and bears north-west nearly 4 miles from Mahé flag-staff. The fort, in which are situated the gaol and hospital, is built on rising ground, 100 yards from the sea, and about 40 feet above sea-level. At $\frac{1}{4}$ mile to south-west of the flag-staff is a ridge of basalt rocks, lying parallel with the coast for 2 cables' lengths. Between them and the shore are detached rocks, above and below water. They only afford shelter to the landing-place at low tide during north-west winds. Within and on the northern side of the ledge of rocks fronting the fort, small vessels have been known to be moored head and stern during the south-west monsoon. Green Island, at $2\frac{1}{2}$ miles north-west by west of Tellicherry flag-staff, and 2 or 3 cables' lengths from Dharmapatam Point, is surrounded by rocks. They are scattered over the whole space between this island and the Tellicherry Rocks. Dharmapatam old fort is 1 mile within the point and about 200 feet above the sea. Boats sometimes bring their cargo to ships out of the little river east of Dharmapatam. A considerable and increasing trade in coffee now goes on at Tellicherry. Other articles of commerce are pepper, cardamoms, ginger, arrowroot, cinnamon, rice, and sandal-wood. Good water and other refreshments on a small scale may be procured here. Small native boats bring much coir yarn to this place and Cannanore from the Laccadive Islands, taking away rice in exchange. There is a custom-house at Tellicherry, and a Government Medical officer. Several English merchants are also settled there. The population is about 20,000, the majority of whom are Moplahs, or Mussalman; the rest Brahmins and Teeyars, with a few Roman Catholics. A sixth order white dioptric light is exhibited from a small masonry tower 70 feet above high water. In clear weather it is visible 8 miles. Large ships must anchor well out in 6 or 7 fathoms, when there is a chance of unsettled weather. In the fine season, which is the only time that trade is carried on along this coast, vessels may anchor in 5 fathoms, soft mud, with the flag-staff north-east and Green Island north-north-west rather more than 1 mile from the rocks. It is high water on full and change at 11 hours 40 minutes, springs rise 5 feet, but extraordinary tide 6 feet; neaps rise 3 feet.

MAHÉ FORT flag-staff, in lat. 11° 42′ N., long. 75° 31′ E., stands 4 miles to south-east of Tellicherry, and bears north-north-west 15 miles from Ticottay Point, and north $12\frac{1}{2}$ miles of the Sacrifice Rock. This is a French settlement, of small extent, at the mouth of a little river, off which are sunken rocks. Ships' boats should not attempt to run in till they have examined the passage, which is very narrow. The land at the back of Mahé and Tellicherry consists of detached hills, on which are old forts and houses. Vessels may anchor off Mahé in 5 fathoms, mud, with the flag-staff east-north-east and 2 miles from shore. Badagara is a town of importance, about midway between Mahé and Ticcotey Point. At the back of the town, and on to Cannanore, there are pretty undulating hills, about 400 feet high. The Wynaud range of mountains to the east have lofty peaks, which make this the most beautiful part of the Malabar coast.

SACRIFICE ROCK, called by the natives Coonyauly, in lat. 11° 29′ 45″ N., long. 75° $31\frac{1}{2}$′ E., bears S. $\frac{1}{2}$ E. from Tellicherry $5\frac{1}{4}$ leagues, and is distant $4\frac{3}{4}$ miles from the land opposite; it has a white aspect, 40 feet in height, and is discernible 3 and $3\frac{1}{2}$ leagues from a large ship, the deck being elevated 15 or 20 feet above water. It is called Biliculloor or the white cave by the natives of Malabar. This rock or island is steep all round, having 12 and 13 fathoms close to it, 16 fathoms $2\frac{3}{4}$ miles outside, 10 fathoms within it, to 7 fathoms about midway between it and the main, in a very good channel. Cotta Point, situated to the east of Sacrifice Rock, at the entrance of Cotta river, is low and covered with trees, having a reef of shoal water extending from it along shore to the north stretching about $2\frac{1}{2}$ miles off shore. Ships passing through the inside channel ought to give the point a berth of 3 miles by borrowing towards the rock; and in working should heave the lead quick, if they come under 6 fathoms standing in shore. Passing outside Sacrifice Rock in the night, ships should not come under 16 or 17 fathoms water. The 'Prudence and Union,' ordnance store-ships, were driven from Calicut road in a storm, at the setting in of the south-west monsoon, and not being able to weather Cotta Point, were both wrecked on the reefs near it. About fourteen years afterwards, the 'Hercules' of Bombay, by borrowing too close in the night, grounded, and was nearly lost.

CALICUT, in lat. 11° $15\frac{1}{4}$′ N., long. 75° 55′ 35″ E., bears from Sacrifice Rock south-east distant 20 miles and N. by W. $\frac{3}{4}$ W. 6 miles from Beypore. Calicut has a light-house, a white stone column 98 feet high, standing on the sandy beach a few yards north of the custom-house. It is a prominent mark from sea-ward in the afternoon; but is scarcely distinguishable even with a telescope in the morning. The same may be said of the town, which covers a good extent of the beach, the houses being very much hidden by the cocoanut trees. The houses of the English authorities amongst trees on small hills about 200 feet high, and $2\frac{1}{2}$ miles north of the light-house, form the best land-marks for Calicut. Vessels should anchor in 5 fathoms, mud, with those houses bearing north-east, or the light-house east, as it is all foul ground south of that line even out to 6 fathoms. Calicut has a large trade in pepper, coffee, cardamoms, rice, coir-rope, timber, &c. The merchants find it more convenient, when the sea-breezes are strong, to load from the beach abreast of the hill-houses, 1 or 2 miles to north of the light-house, where there is always less surf than opposite the town. A screw-pile pier has lately been erected to the north of the light-house. Large kotiyehs and pattimars are built on the beach $1\frac{1}{2}$ miles south of the light-house, by the entrance of Calicut river or creek, where the shore is also smooth, being partially protected by the Coote Reef. There is a patch of rocky ground with 4 fathoms least water, having 6 fathoms, mud, all around it, bearing

west-north-west distant 3¾ miles from the light-house. This is supposed to be the shoal discovered by Captain Hogg of the 'Juliana.' Calicut Reef, on which the sea breaks in one part almost always where there is only 2 feet at low water, is of irregular outline. This shoal-patch of 2 feet is in its centre, and bears from the light-house S., S.W. ½ W. 1¼ miles, and is distant 6 cables' lengths from the nearest shore abreast. The southern extreme of this reef (which is generally called the Coote Reef after the late East India Company sloop-of-war Coote, which was lost there) lies 2 cables' lengths to the south of the centre breakers. To the south and east of the reef the bottom is soft mud. There is a considerable extent of anchoring ground for small coasting craft in 2 and 2½ fathoms at low water, partially protected from north-west winds by the reef. A red buoy to mark the western extreme of this reef, as a guide to small coasting vessels, was moored 2 cables' lengths west by north from the most shallow part. Sea-ward of the reef are numerous dangerous rocky patches, but none have less than 2 fathoms on them. This foul ground extends more than 2 miles off shore. One patch of 13 feet at low water bears S.W. ¾ W. 1¾ miles from the light-house, and another with a similar depth S.S.W. ½ W. rather more than 2 miles. The light-house exhibits at 102 feet above the sea a fixed white dioptric fourth order light, visible in clear weather at 14 miles. It is high water on full and change at Calicut and Beypore at 12 hours 15 minutes; springs rise little more than 4 feet, but extraordinary tides as much as 5 feet; neaps rise 2½ feet. Calicut south-west shoal bears from the light-house about south-west by west 2½ miles. On the northern extremity of this shoal, with the light-house bearing east-north-east, are rocks in 4 fathoms, and on its western edge rocks in 4½ fathoms. Over the centre of the shoals are numerous rocky heads, with 3 fathoms on them, and 3¾ to 4½ fathoms between them. These are the rocks on which the 'Juliana' first struck, when Captain Hogg anchored in 5 fathoms, light-house bearing east-north-east. On the inner or eastern side of the shoal was 4 fathoms clear ground, with the water decreasing gradually towards the shore. When there is any sea on, it breaks, and may generally be seen. On the outer edge are rocks in 3½ fathoms with 2 and 2½. The remains of the 'Juliana' lay in 3½ fathoms, S.W. ¾ S., about 1¾ miles from the light-house. There is said to be another dangerous ledge, bearing west from the light-house, from 1½ to 2¾ miles distant. On the northern side of this shoal, with the light-house E. ¾ S. are 4 fathoms, and on the southern side with light-house E. ¾ N. 4 fathoms; on the western extremity 4¾ fathoms. Ships approaching from either the south or the north intending to anchor, ought not to come inside of 8 fathoms till the light-house bears east by south, then steer for the anchorage. The best anchorage in Calicut roads is, during the north-east monsoon, in 5½ fathoms, with the light-house about east by south. This is a convenient berth for the new screw-pile pier. From Ponnany to Calicut and onwards to Cotta Point, the coast is low, sandy, and fringed with cocoanut trees, with red laterite hills at the back. About 10 miles inland of Calicut are isolated hills about 800 feet high. The best distinguishing mark for Calicut in the morning is the house amongst trees on the hill more than 2 miles north of the light-house; in the afternoon the white column of the light-house shows well 10 miles off. The Camel's Hump, or Wavutmullay, about 7,000 feet above the sea-level (the culminating peak of the Coondah Mountains which stand 20 miles west of the Neilgherry range), bears from Calicut Light-house N.E. by E. ½ E. 23½ miles. It may be seen in clear weather, as soon as a vessel is on the bank of soundings. In the hazy weather of March and April it is frequently indistinct from the anchorage off Calicut. The southern extremity of Coondah Range is rather abrupt, the mountains thence receding far to the east.

Beypore River, in lat. 11° 10′ N., long. 75° 47′ E., bearing south by east from Calicut, about 2 leagues distant, has 8 or 10 feet on the bar at high tides; but the rise and fall is very little along the Malabar coast. This river takes its rise from the ghauts, and runs through a country abounding with excellent teak-timber for ship-building. A little inland from this place there is a hill called the Dolphin's Head. About 4 leagues farther to the south, in the lat. 10° 59′ N., is situated the small river of Tanjore, and 3½ leagues distant from it to the south by east is Ponnany river. Tannore may be known by a tuft of trees. The coast is very woody between it and Ponnany. Beypore is now become a place of importance at the terminus of the Madras Railway. Being so close to Calicut, and having no dangers near the shore except the rocks which are visible, the light-house of Calicut is made to answer for both places, and there is one conservator only for the two ports. A small red light is exhibited from the flag-staff as a guide for vessels making the anchorage at night. There is a good landing-place for boats on the eastern side of the Chauliam rocks, which (at low water when the sea is rough and the bar of the river unsafe to cross) make a stillwater harbour during north-west winds. Boats should pass round the southern end of these rocks where they rise several feet out of the water and are deep-to. At 2 miles up the river, on the northern bank, is the Beypore iron foundry, an extensive establishment, where castings of a considerable size and other iron-works are executed. Chauliam is a town on the southern side of Beypore river entrance, where the railway terminus is situated: it is low and woody, but at the back the land rises gradually. Collacoon, otherwise two-tree hill, bearing south-east by east, and distant about 3 miles from the river mouth, is 200 feet above the sea. Ooratmulla, the Dolphin's Head, is a wooded hill about 900 feet above the sea, bearing E. by S. ½ S., distant 13 miles from Beypore. It shows well when seen over Calicut, or bearing south-east; but when seen at the back of Tannore, or bearing north-east, is not at all a good land-mark. Tannore is a town of some size on the sea-shore, about midway between Ponnany and Beypore.

Ponnany River (the tree near it), is in lat. 10° 47½ N., long. 75° 53½′ E. It is navigable only by small craft, the water being shoal. The coast from Calicut to this place, and from hence to Cochin, may be approached to 7 fathoms. The whole of this space is low and woody fronting the sea. The high ridge of mountains called the ghauts extend parallel to the coast to Cape Comorin, excepting a remarkable interruption, or gap of lowland, between Ponnany and Cochin, through which the land-winds usually blow stronger than any other part of the coast. Supplies and water are to be procured. High water on full and change before 1 o'clock rise and fall 6 feet. There is a timber depôt for teak, anjaly, yerool, and other woods, on the southern side of this river at ½ mile within the entrance. The timber is brought and floated down from the Anamullay forests.

Chetwye (the church) in lat. 10° 32′ N., is situated on the northern side of the river Chetwye, or Paulore, about 6 leagues south-south-east of Ponnany river. Chetwye town bears from Paliport north-north-west 22 miles. Only small coasting vessels can enter this river at high water. The sea-face of this part of the coast is all low and sandy, fringed with cocoanut trees, amongst which houses are visible at intervals. At a distance of 15 miles to east of Chowghaut is the base of the mountains; but off that place it is difficult to make out any particular peak. There is a little round red hill about 8 miles north-east of Chowghaut, about 250 feet high, with a tree on its top. About 18 miles to the east-north-east of Chowghaut is a range of hills intermediate between the ghauts and the coast. The south-east extreme is the highest, and more than 1,000 feet above the sea, and like a porpoise's back, rather abruptly terminating on the south. Ships anchor off this place in 6 fathoms, mud, abreast the river, which is wide. The water being shallow, the latter will admit only boats or small vessels.

Cochin and Travancore Coasts.—The Cochin coast from Paliport to within a few miles of Alleppey, is all low and sandy, with cocoanut trees, having no elevated land whatever near the sea. The highest ghauts are nearly 50 miles inland, though several spurs stand between them and the sea, but none near enough to be distinguished, except when the weather is clear. The Anamullay mountains stand in British territory, on the eastern side of the province of Cochin, and to the south of the Palghaut gap. They furnish good but small teak timber for ship-building. This is brought to the sea-coast at Ponnany. The highest peaks of the Anamullay range are upwards of 6,000 feet above sea-level, and nearly 50 miles inland. Colangode Bluff, the north-western extreme of these mountains, estimated at 5,000 feet high, is a remarkably steep bluff facing the north. It is about 40 miles E. ½ N. of Chowghaut, and makes the southern boundary of the Palghaut gap, through which the Ponnany river flows, and the Madras Railway now passes, and through which the land-winds blow so fiercely between November and February. This remarkable gap, more than 4,000 feet lower than the hills on its north and south, is on the meridian of 76° 45′ E., and between the parallels of 10° 33′ N., and 10° 52′ N. In the fine weather of the north-east monsoon, the Colangode Bluff is very conspicuous, but in the hazy weather, after February, it is seldom seen. The Travancore coast, from Alleppey to Comorin, is generally low and sandy, fringed with cocoanut trees. Patches of red cliffs of slight elevation here and there break the otherwise continuous line of sand. The Travancore mountains, though generally spoken of by navigators as

a part of the Western Ghauts, are indeed separated from the latter by a low neck of land, the Palghaut valley, which has proved a most useful feature in the railway communication between east and west coasts. The length of this southern mountain chain, extending from a few miles north of Cape Comorin to the valley of Palghaut, is nearly 200 miles. The western brow, overlooking the coast of Travancore, is, with little exception, abrupt. On the eastern side of the culminating range the declivity is in general gradual, the surface in many places forming extensive table-land, sloping gently and nearly imperceptibly to the eastward. In the last half of the year many cascades of great height are visible from sea-ward, pouring down the steep declivity of these western ghauts, which present so vast and lofty a front to the violence of the south-west monsoon. The principal peaks of the Travancore Ghauts are: Mahendragherry, between 3,000 and 4,000 feet, about 20 miles north of Comorin, and Cootchimulla, nearly 5,000 feet, the same distance north-east of Trivandrum. Between these peaks the culminating range has a north-westerly direction, but afterwards trends a little east of north, more away from the coast. Its highest mountains, though loftier, are not so often visible at sea. They form the boundary between the State of Travancore on the west, and the British province of Tinnevelly on the east. To the east of Quilon there are broad, high peaks, estimated at 5,000 feet above, and more than 30 miles from the sea. The southern portion of the Western Ghauts, from Comorin to Palghaut, run like a spine from south to north, thus forming the water-parting between the east and west coasts rivers. They are exposed to all winds from east, round by the south-west, and there is scarcely a day when rain-clouds may not be seen hiding for a time the summits of the high land. Towards the vernal equinox (after which the air gets saturated with moisture and is hazy) the ghauts north of Quilon up to Calicut can seldom be seen. Midway between the ghauts and the low sea-coast, the country has several hills of moderate elevation, useful as land-marks. Beginning from the south, mention may be made of the isolated conical mount, in lat. 8° 8′ N., and long. 73° 30′ E., near Cape Comorin, which is taken for the cape by seamen when approaching the coast from the west. The next conspicuous peak is Maravattoor, nearly midway between Mahendragherry and the Crocodile Rock, and 10 miles north-west of the conical mount. On the south-east of Trivandrum, and again to the north of that capital, hills, averaging about 400 feet, lie parallel to the shore, some 4 or 5 miles off. Near Anjengo there are a few low hills. Above this place extensive backwaters become the peculiar feature, overspreading great portions of the low tract of country. Vessels bound for any port on the west coast of Hindostan, and to the Persain Gulf during the north-east monsoon, from China, Australia, and the Bay of Bengal, or from Europe, should sight Ceylon, and make the coast of India somewhere near Cape Comorin, and thence hug the coast to profit by the land and sea breezes. The coast from Cape Comorin takes a general north-westerly direction for nearly 300 miles to Mount Delly. The country from the village of Comorin to Alleppey belongs to the Rajah of Travancore; thence to Paliport (with the exception of the port of Cochin, under the British Government) is the territory of the Rajah of Cochin. From above Paliport to Mount Delly is the British province of Malabar.

PALIPORT RIVER.—Cranganore, in lat. 10° 12′ N., where the Dutch had a fort and factory, lies on the northern side of, and 2½ miles within, the mouth of a river called Paliport, the entrance to which bears from Cochin N. by W. ½ W., 14 miles. Between Cochin and Cranganore is an extensive soft mud bank, which (like that off Alleppey) shifts its position, rendering several portions of this shore free from surf, and consequently safe landing-places. At 5 miles south of Paliport this soft mud bank, having little more than 1 fathom on it, extends nearly 3 miles to seaward of the cocoanut trees. The river has a bar, and is only available for small coasting craft. The times of high-water and the rise of tide are almost the same as at Cochin, but more regular. The rise and fall is a little greater. Coir, timber, and some pepper are exported from the rivers situated between Calicut and Cochin. From Cranganore the coast stretches south by E. ½ E., 4½ leagues to Cochin; the general direction of it from Calicut to the latter place is south-south-east, but varies at different parts between south by east and south-east by south. The depths are 20 and 22 fathoms 6 leagues off shore, the low land then just visible from the deck; and 30 or 32 fathoms about 8 leagues from it. From lat. 10° 30′ N. to the parallel of Cochin, the edge of the bank has a steep declivity, from 36 or 40 fathoms to 100 fathoms, no ground, about 9 or 9½ leagues off shore. Naracal flag-staff, in lat. 10° 2′ N., marks a new port, which the Cochin Rajah has established as a safe place (like Alleppey) during the south-west monsoon, when there is no surf on the beach, and easy communication can be had in any boats, as the water is smooth under a depth of 3 fathoms, owing to the mud flat, which lies off this part of the coast. The position of the place is pointed out by the flag-staff, and by the Cruz-Milagre Gap, a conspicuous opening in the belt of cocoanut trees, which however is not seen till the ship is abreast of it, when coming from the south. The Cochin light-house is a good guide, being only 4 miles from Naracal. Naracal anchorage in bad weather, or during the south-west monsoon, serves as a sort of refuge for those ships which cannot remain in Cochin roads. When a south or a south-west gale comes on, they should weigh (with ebb tide if the wind be scanty), and steer to north-west by north, till abreast of Naracal; then run in to 4 or 5 fathoms, which is nearly 3 miles off shore, with the flag-staff between east by south and east-south-east, and the Cochin light-house about south-east by south. Boats communicating with the shore should steer direct for the flag-staff, where they can be safely hauled up, and should avoid the heavy outer surf line as far as possible. Cochin can be reached in two hours. Provisions and water are easily obtained. Repairs or refitments can be done.

COCHIN (the flag-staff) is in lat. 9° 58′ N., long. 76° 14′ 45″ E., bearing from Alleppey N. by W. 29 miles. This port belongs to the British Government, and has a master attendant, a magistrate, and pilots. The English territory is very limited, and all on the southern side of the river entrance. The adjoining land belongs to the Rajah of Cochin. The British Resident or Commissioner has a large house on Balgotty Island, nearly 2 miles north-east by east of Cochin. There are many English and Dutch merchants here, with a Government medical officer and hospital, and a custom-house. An electric telegraph connects this place with Point-de-Galle, and also Bombay and Madras. The town, which is situated on the southern side, the entrance of the most considerable river on this coast, is a place of consequence as a naval depôt, the country abounding with excellent teak-timber for ship-building and coir for cordage. Several ships have been built here for the merchants of Bombay, measuring from 600 to 1,000 tons. The land at the back of Cochin is all low: and although the houses and the light-house on the sea-face of the town are white, they do not show well, except in the afternoon. The flag-staff, however, is high above the trees and houses, and easily perceived with a telescope. Signals are always made when ships are in sight. The bar at the river's mouth is a narrow strip of sand, having 13 feet on it at low water, but the rise and fall being only 3 feet at spring tides, pilots will only take in vessels drawing less than 14½ feet. The bar is marked by two buoys, the southern one chequered and pear-shaped, the northern one a dull white spire-buoy. The best channel does not always remain at the same spot. There is at times a surf on the bar, occasioned by the strong ebb running out against the sea-breezes when there is any swell outside. Strangers ought, therefore, in running for the river in their boats, to be careful to keep in the proper channel, as several accidents have happened to boats crossing the bar after dusk. The river inside is deep, 7 to 9 fathoms being found abreast of the flag-staff and building yards. Vessels are snugly berthed there by the master attendant, and generally load at a pier. Cochin is an important ship-building depôt and repairs of any nature to sailing vessels can be executed. Teak-timber is not so cheap or plentiful as formerly, though other useful woods are procurable. Water, poultry, sheep, pigs, and rice and other provisions in moderation may be procured. The water of this place is not recommended, unless the supply comes in boats from Alwye, a town several miles to the north-east of Cochin. A fixed white catadioptric fourth order light, in lat. 9° 57′ 47″ N., long. 76° 13′ 45″ E., is exhibited from sunset to sunrise, on a white column near the beach, to sea-ward of the town, 100 feet above the sea-level, and seen 15 miles off. This new light-house is 800 yards to south-west by west of the Port flag-staff, where the old light used to be hoisted on the top of an old church-tower. The best anchorage in Cochin roads is from 5½ to 6½ fathoms soft ground, 2 to 2½ miles off shore, with the following bearings—Cochin flag-staff E. ½ N. to E.N.E.; light-house E. ¾ N. to E. by S. The stream of tide is very strong, and its times of change are very irregular, influenced by the evaporation from, or the fall of rain upon, the immense area of backwater, of which the Cochin river mouth is the outlet. At the anchorage abreast the bar the ebb sets west-north-west, but the tendency of that tide is to the north-west; its racing over the sand-banks on the northern side of the river entrance always produces heavy breakers there, which a ship's boats should avoid. It is high water on full and change at 1 hour 20 minutes; ordinary springs rise 2½ feet, neaps

$1\frac{1}{2}$ feet; but sometimes the water remains at the same level (about its mean level) during a whole day by the custom-house tide-gauge. This peculiarity may be attributed to the great evaporation from the immense back-water of Cochin, as above stated; but it is believed that there is a little more rise and fall on the bar, and on the adjacent coast, than inside the river; extraordinary springs rise a little more than 3 feet. Night tides are highest all along this coast from November to March, and day tides from May to August; in the other months they are about equal.

ALLEPPEY, in lat. 9° 29′ 48″ N., long. 76° 18′ 45″ E., bearing S. by E. from Cochin, distant $9\frac{1}{2}$ leagues, is the principal sea-port of the Rajah of Travancore. It communicates with Cochin by a canal commencing inshore from the coast about 200 yards, and running into the vast backwater. The place may be known from the offing, in coming from the northward, by a large white house, which is however hid by some cocoanut trees, when coming from the southward. This village is situated in the kingdom of Travancore, and carries on a considerable trade in teak-timber, betel-nut, coir, and pepper. Large ships used to anchor in 5 or $5\frac{1}{2}$ fathoms, with the large white house north-east by east; or, a ship not drawing more than 18 feet water, in 4 or $\frac{1}{4}$ less 4 fathoms, with the flag-staff bearing north-east, distant about $2\frac{1}{2}$ miles. It is a safe roadstead all the year round, being fronted by a soft mud-bank, on which a vessel might ride with less risk than at any other part of the coast. A shoal-bank of from 6 to 9 feet extends about $1\frac{1}{2}$ miles off shore. The cause of this mud-bank is supposed by Mr. Crawford (Commercial Agent of the Travancore Raj) to be the greater elevation (by 4 feet) of water-level in the vast backwater, over that of the outside sea. The hydraulic pressure forces out mud and vegetable matter through mud volcanoes which (in the south-west monsoon) form along the beach and in the shallow water. Mr. Crawford also by boring found evidence of a subterraneous communication through mud between the backwater and the sea. This may account for the accession of mud, but doubtless the monsoon swell keeps this accumulated mud so stirred up as to deaden its activity and produce the remarkably smooth water which constitutes Mud Bay (as it was called by the pioneers of commerce on the Malabar coast), the safest harbour along it. During the south-west monsoon, although the surf breaks on the shore to the north, and the sea is white with foam outside, there is at Alleppey a large extent of smooth water, on the outer part of which a vessel may conveniently anchor in $4\frac{1}{2}$ fathoms, and keep up a communication with the shore. In the fine season, a vessel, not drawing more than 18 feet water, may anchor in 4 fathoms, or a trifle less, the bottom being soft mud. The anchorage in the roads during the south-west monsoon is with the light-house from N.E. to E.N. in 5 or 6 fathoms water. In the fair season from October to May vessels may anchor in 3 or 4 fathoms with the light-house bearing E. by N., the soundings are very regular. During the south-west monsoon, trade cannot sometimes be carried on at Cochin, but the port of Alleppey is always available. The backwater and canal communication between these two places is an immense advantage. Alleppey has a flag-staff which is seen above the trees, and near it, a white light-house, 85 feet high. It has a revolving white light, attaining its greatest brilliancy every minute. The light is of the second order, elevated 100 feet above mean sea-level, and should be seen in clear weather 15 miles. Between Cochin and this place the coast is very low, covered with trees, and may be approached to 6 fathoms in a large ship, the bank being very even to 5 fathoms, about 1 or $1\frac{1}{2}$ miles from the shore. High-water on full and change at 1 hour 30 minutes; rise about 3 feet. Poracaud, in lat. 9° 21′ N., bearing about S. by E. $\frac{1}{2}$ E., 3 leagues from Alleppey, is another village belonging to the Rajah of Travancore, of considerable extent. The houses are not easily seen except when near the shore. Coir, plank, and timber for ship-building, and pepper are exported from these places and from some of the adjacent ports. The coast continues low and uneven, safe to approach to 5 or 6 fathoms. The anchorage is opposite the village in $5\frac{1}{2}$ or 6 fathoms, $1\frac{1}{2}$ or 2 miles distant. Between Alleppey and Poracaud a village named Crahul is situated, with cadjan storehouses close to the water's edge; it carries on some trade. Caroonacapully lies to the north of Ivica river, and when running along the coast in 8 fathoms, it may be easily distinguished by a considerable opening like the mouth of a river. Ivica river, in lat. 8° $56\frac{1}{2}$′ N., long. 76° 32′ E., is 4 miles to the north-west of Quilon, and has on its banks a village of the same name, subject to the Rajah of Travancore. The river has a wide entrance, communicating with several other rivers, one of which runs parallel to the coast, and unites with Cochin river, forming a safe inland navigation. This place admits only boats over the bar at the entrance, there being but 5 or 6 feet on it at highwater. The bottom consists of hard sand and gravel, as far out as 8 fathoms. A large ship touching here to take in plank, or other articles, may anchor in 7 fathoms, with Quilon Point bearing south-east by east, and the middle of Ivica river's mouth north-east by east; or in 6 fathoms hard sand, with the river's mouth N.E. $\frac{1}{2}$ E. and Quilon flag-staff south-east by east $\frac{1}{2}$ east, off shore about $2\frac{1}{2}$ miles. It would not be prudent to go farther in with a large ship. The soundings are very irregular under 8 fathoms, particularly to the northward and southward of this anchorage, having coral heads of 2 to 4 fathoms nearly 2 miles off shore. There is here some export trade of timber, pepper, ginger, cardamoms, lac, and turmeric. The bar of the river has little more than 1 fathom at high tide. Within the entrance, the area of shallow water is very great. There is canal communication with Cochin to the north, and Trivandrum to the south. The coast from Ivica river to Cochin is all sand and fringed with cocoanut trees. The town of Poracaud lying 9 miles south of Alleppey, has a considerable trade in coir, timber, pepper, &c. The sea-coast of the Travancore Rajah's dominions terminates about midway between Alleppey and Cochin. Alleppey bears N.N.W. 40 miles from Quilon point. The coast between, except near Tungacherry, is sandy, and nearly straight; but 10 miles north of Quilon there is a slight indent, which does not, however, amount to 1 mile from a straight line drawn between the two places. The shore is safe to approach into the depth of 5 fathoms, mud; but it must be remembered that towards Alleppey this depth is found nearly 3 miles off.

QUILON (the Tungacherry Fort), in lat. 8° $53\frac{1}{2}$′ N., long. 76° 34′ E., bears south-south-east about $10\frac{1}{2}$ leagues from Poracaud. Two buoys have been laid at Quilon to mark the safe passage to the anchorage. The south-east buoy is placed in 6 fathoms and is painted white. The north-east buoy is placed in 5 fathoms and is painted black and white. Bearings from flag-staff in front of Scottish India Company's premises are $218\frac{1}{2}$° and $241\frac{1}{2}$° respectively and from the Roman Church 164° and 167° respectively. Vessels for Quilon should keep well out until the large Factory chimney bears N.E., and then steer direct for the chimney keeping between the buoys. The coast between them is low, covered with trees, and may be approached to 6 fathoms, till near the entrance of Ivica river. Quilon bank, of hard ground, extends from Ivica round Quilon Point, where it becomes very uneven and dangerous to approach under 12 or 13 fathoms. Under these depths, abreast the point, there are sudden overfalls from 9 to 4, 3, and 2 fathoms rocky bottom. The reef or foul ground of Quilon should not be approached under 12 fathoms. Quilon bears from Anjengo N.W. $\frac{1}{2}$ N. 18 miles. Between Anjengo and Quilon the coast forms a bight, which is deepest about 5 miles south-east of the latter place, at which spot an extensive backwater makes a gap in the line of trees fronting the coast. Quilon Point is a projecting part of the coast. The outer point, which is called Tungacherry, on which are the flag-staff and master attendant's house, amongst high cocoanut trees, is slightly elevated above the adjoining land. One large bushy, round tree above the rest may be seen beyond 10 miles from a ship's deck. The flag-staff cannot be seen so far off unless the colours are hoisted. The coast for more than 2 miles north of Tungacherry flag-staff is rocky and slightly elevated, having at about half that distance from Tungacherry a white church, which in the afternoon shows well.

TUNGACHERRY REEF.—Quilon, besides being a projecting point of the Travancore coast, is rendered still more unsafe to approach by the bank of hard ground, called the Tungacherry Reef, extending $1\frac{1}{2}$ miles to the south-west, and 3 miles to the west of the point, and 6 miles along the coast to the northward. The bank should not be approached under 13 fathoms water by day, or 17 fathoms at night, as it is deep-to. In standing to the northward along the coast at night with a fresh land-wind, ships should be careful to increase the distance from the shore as the vessel approaches Quilon. To the south-east of the reef the coast forms a bight, where ships may anchor off the town and military station of Quilon, in 5 or 6 fathoms, sand, with Tungacherry flag-staff bearing north-west 1 mile distant. As there are rocky overfalls a little to the east of this position, and the master attendant's boat will always come off, it is better to wait for that officer to berth the ship. During the fine season from November to April, trading or trooping vessels can lie close inshore with safety. The point and reef shelter this anchorage from north-west winds; but if the weather is cloudy and unsettled, ships should not be placed too close to the shore. The bank of soundings off Anjengo extends 25

miles from the main; off Quilon 28 miles; off Alleppey 30 miles; and off Cochin 35 miles. Off Quilon Point there are 20 fathoms at 5 miles off shore; but farther to the north that depth will be found farther from the coast. Off Alleppey there are 20 fathoms at 12 miles distance, and off Cochin the same depth at 16 miles. There are 10 fathoms only 1 mile off Anjengo, but farther to the north that depth is 2 miles off shore. Abreast Quilon Point there are 20 fathoms on the foul ground 3 miles from land; to the west of Ivica river at 4 miles from land, and so gradually increasing its distance, until at Alleppey there are 10 fathoms as far as 8 miles from the coast. Above this latter place the 10 fathoms line runs N. ½ W., again approaching the coast, until off Cochin it is 5½ miles from land. Thus it will be seen that the bank, of such soundings as the hand-lead will give, extends farther off Alleppey than off any other place yet described. To the north of Ivica as far as Calicut, the soundings are all regular, and the bottom mud; whereas below Quilon to Cape Comorin it is sand and rocky in many places.

Anjengo (the Fort), in lat. 8° 40′ N., long. 76° 45′ E., bears from Quilon S.E. ¼ S., distance 6 leagues. When 3 miles to the southward of the latter, the coast may be approached to 10 fathoms, which will be 1½ miles from the shore. In clear weather it may be known by a remarkable peak of the ghauts, sometimes called Anjengo peak, about 8 leagues in land, higher than the adjoining mountains, which is in one with the fort bearing E. by S. This peak Cootchimulla may be seen from abreast Quilon, and off Cape Comorin. Anjengo flag-staff is between 4 or 5 leagues to the west-north-west of Trivandrum Observatory, and bears from Covilam Point N. W. ½ N., 20 miles. As the fort and a few houses (that are visible through the trees) are low, this place is not easily distinguished from even a short distance. A church with a white front will be seen on the beach 2 or 3 cables' lengths to the north-west of the fort, and a bungalow on the hills 2 miles north of it. There is some red table-land about 4 miles to the north of Anjengo, which may denote the approach to it in coming from the north. This and other similar table-lands along this coast, being much higher than the cocoanut trees, when seen from a ship's deck at a greater distance than 7 miles, give the mariner an idea that these red cliffs come down to the water's edge; whereas the shore is all sandy from Covilam to Quilon. The anchorage off Anjengo under 10 fathoms is foul rocky ground; but outside of that depth the bottom is sand and shells. Ships ought, therefore, not to anchor under 10 or 11 fathoms, the ground being good in these depths. A convenient berth is with the flag-staff about N.E. by E., and Brinjaul Hill about S.E. by E., in 11 or 12 fathoms mud, off shore 1 mile. Coir may be procured here. The water is indifferent and scarce, and few articles of refreshment are to be obtained. Ships load pepper here, and at Quilon, also at Calicut. Tellicherry and Mahé, the pepper being brought off in tonies or country boats, adapted for passing through the surf. There is said to be fresh water at the Red Cliffs to the northward of Anjengo, but it cannot be got conveniently. A considerable surf generally prevailing on the coast, particularly to the southward, renders it frequently unsafe for ships' boats to land. The depths of water between Cochin and Anjengo are 20 and 22 fathoms, from 2 to 2½ leagues off, 30 to 34 fathoms about 5 and 5½ leagues. The edge of the bank of soundings is distant 9 or 10 leagues from the shore. There is an admirable system of inland communication by canal and natural backwater, in fast-pulling boats, from below Anjengo through Quilon and Alleppey to Cochin, and 50 miles beyond.

Trivandrum Observatory, in lat. 8° 30½′ N., and long. 76° 57′ E., established by the Rajah of Travancore, is situated on an isolated hill, about 2¾ miles inland, and to the north of Trivandrum town, and 196 feet above the level of the sea. Trivandrum, the capital of the independent principality, Travancore, and the seat of the British Residency, is 5½ miles north-north-west of Covilam. The town is of considerable size, having its greatest length north and south. The fort stands in the southern extremity of the town about ½ mile square, on ground elevated 100 feet above the sea. The Rajah's palace, within its precincts, is a large handsome edifice in the European style; it is a little way inland, more than 2 miles from the sandy beach of Poondoray. The Trivandrum Observatory is on a hill, more than 2 miles north of the capital, and 200 feet above the sea; its two white domes are very conspicuous. Having been established since the province was surveyed, its position is not accurately defined. Poondoray, off which vessels communicating with Trivandrum should anchor, has a flagstaff on the sandy beach. The flagstaff bears N.W. and is 5 miles from Covilam, and 2 miles to the south-west of Trivandrum Fort. No ships' boats should attempt communication with the shore, when there is a heavy surf in the north-east monsoon. The coast is sandy, with cocoanut and other palms. As the shore is deep-to, a vessel should anchor in 12 fathoms, sand, ½ mile from Poondoray flagstaff bearing N.E. and nearly in line with the Observatory. Inland of Trivandrum the ghauts are of great elevation. Cootchimulla, the highest peak (called sometimes by early navigators, Anjengo Peak), is more than 4,000 feet high, and bears N.E. by E. ½ E., distant 21 miles from the beach by Poondoray flagstaff. Between this high range and the coast some small hills appear, the most remarkable of which is Neiman Hill, or Makoonnamulla, a regular sloping round mount about 600 feet above the sea. It was called by former navigators Brinjaul Hill. This hill bears E. from the anchorage off Trivandrum, and being only 5 miles from the sea, is visible at a considerable distance from the south, and from Anjengo roadstead. There are little white churches in almost every village along this coast. Between Ruttera Point and Anjengo, the land, at the back of the cocoanut trees which fringe the coast, is hilly and undulating.

Covilam, or Ruttera Point, in lat. 8° 24′ N., long. 76° 58′ E., bears S.E. ½ S. from Anjengo, distant 6¾ leagues. It is a piece of low, level land, terminating in a bluff, fronting the sea, higher than the contiguous coast, but projecting very little. About 3½ miles to the north of the point, there is a village, established not long ago by the Rajah of Travancore, called Poondoray, having a high flagstaff with several straggling buildings between it and Anjengo. The coast in this space is low and abounds with trees. It is bold to approach, having 12 or 13 fathoms at a mile distant, 25 or 26 fathoms about 2 and 2½ leagues' distance. The edge of the bank of soundings is about 9 leagues distant from the shore. Covilam, or Ruttera Point, bears from Enciam Islet about N.W. ¼ W. 16½ miles. The coast between them, except near Covilam, is sandy, nearly straight, fronted with cocoanut trees and safe to approach. Covilam is a piece of low, level land, terminating in a bluff cape higher than the contiguous coast. It projects very little, and has a building upon it. There are three little projecting points close to the south-east of it. At the distance of 3 miles is another point, 1 mile is to the east of which is the village and backwater of Caroochel. The point Veniyam has been described as 7½ miles to the south-east of Ruttera Point, and "formed of steep bold land, or reddish cliffs, considerably elevated, having on the northern side a small river, and a village at the northern extremity of the high land that forms the point." This is evidently a description of the Colattore Hill and the village of Pauvoor as seen from the south, from which point of view the hill would look like a point projecting to north, if the vessel were far enough off to dip the trees. The coast-line hereabouts, according to Captain Selby's survey, is all sandy, and fronted with cocoanut trees. Colattore Hill (formerly called Point Veniyam) bears from Enciam Islet N.W. ¼ N. distant 8 miles. From point Veniyam the coast takes a direction about S.E. by E. to Cadiapatam Point, 6 leagues. The land facing the sea is mostly steep and high, of red appearance in some places. About half-way between point Veniyam and Cadiapatam Point, the Island Enciam, having a church and some other buildings on it, is situated near the shore. Rocks above and under water project from it to a small distance. To the north of these lie the town and river of Tengayputnam. This river having a bar at the mouth, can only be entered by large boats in the rainy season, although navigable inside at all times. It extends a considerable way inland. There are several small villages and churches along this part of the coast, and some of these ancient Nestorian churches may be seen interspersed along the shore from hence to Cape Comorin. A little to the east of the Island of Enciam, the steep land near the sea has a red aspect (resembling that about Point Veniyam), between which and Cadiapatam Point is situated the village Colachel, where the coast forms a small bay, or concavity. Colachel Church is in lat. 8° 10¾′ N.

Enciam Islet, in lat. 8° 12½′ N., long. 77° 9′ E., is 5½ leagues to south-east of Ruttera Point, and bears from Cadiapatam Point N.W. by W., 10 miles. This islet is rocky, has a church on it, and lies about ½ mile off the sandy shore. Rocks, above and below water, project from it to a small distance. A little to the east of the islet the steep land near the sea has a red appearance. There are numerous patches of red land between Comorin and Quilon, but cocoanut trees fringe the greater part of the coast. A depth of 13 fathoms will be found close to the outer rocks off Enciam. At night a

vessel should not shoal under 20 fathoms, which depth is only 2 miles from the rocks.

COLACHEL.—This place is on the shore just half-way between Cadiapatam and Enciam Islet; off it there are several rocks above and below water. At the village of Colachel, troops sometimes embark in the fine season, the outlying rocks forming a partial breakwater, within which landing is comparatively easy. There is a conspicuous tree on the undulating ground of Aunipaury Hills, elevated more than 250 feet above the sea, bearing from Enciam Islet N.E. by E. ½ E. 4½ miles, and about 4 miles to north of Colachel village. Colachel, in lat. 8° 10′ N., long. 77° 14′ E., is about 25 miles from the foot of the Ashamboo Hills. These hills form a new coffee-growing district in Travancore, between 2,500 feet and 3,500 feet above the sea-level; and the coffee is now exported direct from this place. The first British ship called there in March 1871, and others have been since. There are no port-dues at Colachel as yet, nor has the anchorage been properly surveyed. Ships of good size can sail between some of the outlying rocks, and ride at anchor to leeward of them in smooth water. Ships should anchor with the tree N. by E., and the highest part of Cadiapatam Red Point east-south-east, in 11 or 12 fathoms water, which position will be 3½ miles to the north-west of Cota Rocky Islet. Native pilots can take the vessel further in to a good berth.

CADIAPATAM POINT, in lat. 8° 7½′ N., long. 77° 18′ E., bearing W. ¾ N. 14 miles from Cape Comorin, and E.S. by E. 10 miles from Enciam Islet, is steep, rather high, and of a very red appearance, with a few trees near its extremity. A first order dioptric fixed white light visible 20 miles in clear weather is exhibited on this point. The column is 80 feet high and is built of granite and its focal plane is 135 feet above sea-level. A heavy surf prevails all along this part of the coast, between Comorin and Cadiapatam. Only catamarans are used by the natives; no ships' boats should therefore attempt landing. To the south-west of this point there are two rocky islets about 1¾ miles from each other, and distant 1 and 2½ miles from the point, surrounded by rocks under water, and foul ground; they are named Adumdah and Cota. About 1 or 1½ miles S.W. by S. fromAdumdah Islet, and 2¾ miles from the point, lies the Crocodile Rock. From this rock, the extreme low point of Cape Comorin bears east, distant 5¼ leagues, the southernmost highland over the Cape E. by N. ¼ N., Cadiapatam Point N.E. ½ N., Adumdah Islet north-north-east, Cota Islet north-north-west and the northern extreme of the land N.W. ½ N. Close to it, at 1½ miles, there are 13 and 14 fathoms, 17 fathoms about 2¾ miles off, 19 fathoms about 3½ miles, 22 fathoms about 7 miles, and 23 fathoms about 2 miles outside of it, sandy bottom.

CROCODILE SUNKEN ROCK, in lat. 8° 6′ N., long. 77° 15′ E., bears south-west from the above point nearly 3 miles; close to it are depths of 14 and 16 fathoms and 20 fathoms ½ mile outside. A part of this rock appears sometimes above water, but it does not break at all times, nor is it visible at high water when the sea is smooth. At night it should not be approached under 25 fathoms water. Between the Crocodile Rock and Cadiapatam Point is the rocky islet Adumdah. 1¾ miles to west-north-west of this islet is another called Cota. Both are surrounded by sunken rocks and foul ground, but there is a channel between the two, and between each and the Crocodile Rock. Cota bears from the Crocodile north-north-west nearly 2 miles. From Ruttera Point to Cadiapatam Point, the bank of soundings extends about 9 or 10 leagues from the land; 30 fathoms is from 4 to 5 leagues off; 25 or 26 fathoms is 2½ and 3 leagues from the shore, which should not be approached under these depths about Cadiapatam Point during the night or in dark weather, on account of the straggling rocks of that place; to the west of these rocks the coast is not so dangerous. In passing between these rocks and Ruttera Point, from 22 to 26 fathoms is a good track with the land-wind. The coast may be approached to 18 or 20 fathoms occasionally. Between Enciam Island and Ruttera Point, a ship may borrow into 16 or 17 fathoms. From Cadiapatam Point, the low sandy extremity of Cape Comorin bears E. by S., distant 5 leagues. The coast between Capes Comorin and Cadiapatam having a little concavity in some places, is low and sandy close to the sea, rising in a gentle acclivity to the base of the mountains situated a few miles inland. Close to the shore some churches are seen and 4 miles to the west of the cape lies the small river Manacoody, with rocks barring its entrance, and some buildings near it. Between this place and the grove of trees at the village of Cape Comorin, the low country seems divided by a wall or trench, stretching from the shore to the mountains, and fortified by mounds of earth. The land between the ghauts and the shore, from Point Veniyam to Cadiapatam Point, may be seen from a distance of 7 leagues; and the mountains inland from 18 or 20 leagues in clear weather. In passing along this part of the coast, when clear of the rocks off Cadiapatam Point, the shore may be approached to 22 or 20 fathoms towards Cape Comorin, which will be about 5 miles off; but in the night or in hazy weather it ought not be approached so close.

CAPE COMORIN, in lat. 8° 5′ N., long. 76° 31′ E., the southern extremity of Hindostan, is a low, sandy cape, with a small pagoda at its extreme point; and (a little to the west of this) the British Resident's bungalow with a flag-staff. About 2 cables' lengths to south-east of the sandy cape is a sloping rocky islet high above water, with other rocks about it, on which the sea breaks. To the west of the Residency the shore of the cape is sandy and barren, but to the east it abounds with trees, amongst which, and 3 miles to the north of the pagoda, is Wuttacota Fort. The pagoda is a low, white, square building near the water's edge. ½ mile to the north of it stands the village of Comorin, called by the natives Cunyacomaury, amongst cocoanut trees, with high reddish ground at the back. ½ mile farther north-east is another little sandy cape, with rocks off it. The land of the cape rises from the sea with a gentle acclivity to the base of the nearest mount, which is of a sharp conical form, 1,400 feet above the sea, at 4 miles to the north-west of the pagoda. It is separated from the range of ghauts, which at its back rise in sharp peaks, chained together, and forming a ridge, which is in one with the cape bearing about north. Approaching the coast from the west, it must be remembered that the above-mentioned isolated conical mount can never be seen, even in the clearest weather, at a greater distance than 35 miles. Some prominent peaks to the north of it may be seen 50 and 60 miles, and the most southerly visible one may be mistaken for the conical mount by ships passing at a great distance. The most likely one to be mistaken for it is a mountain 10 miles to the north-west of it, called Maravattoor. This is more than 2,000 feet high, and bears from Cadiapatam Point N.N.E. ½ E., distance 9 miles. Another peak, called Mahendragherry between 3,000 and 4,000 feet above the sea-level, bears N.E. by N., distance about 11 miles from Maravattoor. The bank of soundings extends 50 miles off shore to the south and west of Cape Comorin. At the distance of 8 miles from the shore south of the cape there are 20 fathoms; but farther to the north-west, as far as Quilon, that depth is between 4 and 5 miles off shore, except in the vicinity of Ruttera, where 20 fathoms will be obtained only 2 miles off land. Near Comorin, and by the Crocodile Rock, casts of 10 fathoms are found nearly 3 miles from the main land; but generally between the cape and Enciam there is that depth at 1 and 2 miles distance. Between Enciam and Anjengo, 10 miles is about 1 mile from land. The bottom is sand and shells, with exceptional rocky casts. To the east of Cape Comorin the bank of shoal soundings extends further off shore, and has more overfalls. The ship 'Shah Allum,' Captain Wadge, from Bombay to Calcutta in lat. 70° 39′ N., long. 77° 16′ E., sounded in 17 fathoms, hard rocky bottom, on a shoal of small extent on the bank of soundings, 36 miles south-west of Cape Comorin. It was examined in 1861, but not less a depth than 14 fathoms was found. This is probably that bank formerly described by Captain Horsburgh as "a great way out from Cape Comorin, and abounding with cod, where some ships have caught considerable numbers of those fish, but it appears to be of small extent and little known."

GULF OF MANAAR AND CEYLON.—The Gulf of Manaar is formed by the coasts of Tinnevelly and Madura on the west; the ledge of rocks and islands, called Adam's Bridge, on the north; and Ceylon on the east. The extreme breadth from Cape Comorin to Point de Galle is 200 miles. The Tinnevelly Coast is about 85 miles in length. The portion to north of Tuticorin is low, with cocoanut trees fringing it. Scarcely any rising ground occurs inland till south of that harbour at the back of Manapaud Point; but the magnificent ghauts, which, running north from Comorin, are the boundary between Tinnevelly and Travancore, form a background, in clear weather, to the otherwise monotonous landscape. Towards Comorin, the ghauts are much nearer to the shore, and always visible. Tinnevelly has several minor streams, but only two principal rivers, the Tambrapurny, and the Veippaur, falling into the sea, the latter 16 miles to the north of Tuticorin, the former about half that distance to the south. In the rainy season, the numerous feeders of these two and other rivers lay the country in many parts under water, and leave everywhere in the plains innumerable small lakes or ponds. That part of the province to the north of the river Tambrapurny is the more level and fertile, being exten-

sively irrigated by canals from that river. The south-east part of Tinnevelly is however barren, having a light stony soil. The soil throughout the province is generally of a deep red or rusty colour, owing to the presence of iron, and contains a large quantity of sand, forming a friable mould. In the maritime tract on the south-east coast, there are extensive salt marshes, liable to spread greatly during the rainy season. Of all the products of Tinnevelly, cotton is the most important; but the cultivation is restricted to the native plant of India. Rice is the principal alimentary crop, but it sometimes fails to a considerable extent when the rainfall is below the usual average. Pearl-banks exist in the shallow sea both to north and south of Tuticorin, but do not produce so great a revenue as those off Ceylon. The Madura coast, from the Paumben Pass to Vembaur, about 50 miles, is an extensive sandy plain, without a single hill or conspicuous eminence. The Veigay, the principal river of the province, falls into Palk Strait just to the north of Tonitoray, the headland which forms the western side of Paumben Pass. The other rivers are numerous, but smaller, and, though destitute of water in the dry season, have considerable volume during the rains, and must naturally bring down much of the alluvial deposit, which tends gradually to fill up Palk Strait. Ceylon Island, known as Lanka by the natives of India, lying off the south-east extremity of the continent of Hindostan, from its peculiar configuration and position nearer the equator, needs some general description, that any points of difference between its seasons and those of Hindostan may be comprehended. Its extreme length north and south is 240 geographical miles, and its greatest breadth, on the parallel of Colombo, is just the half of its length. The northern half of the island is flat and low, but the southern half is mostly mountain region (separated from the nearest ghauts of India by a gap of 200 miles), and from its great elevation and isolated position, by arresting the winds from all points of the compass, causes a considerable amount of rainfall to be experienced, in some part or other of the island, during every week of the year. The greatest quantity falls on the south-west portion of Ceylon in the month of May when the wind is intercepted and its moisture condensed by the lofty mountain ranges surrounding Adam's Peak. The west coast of Ceylon is low near the sea, much planted with cocoanut and other trees. Inland, the mountains attain a great elevation. Adam's Peak (the loftiest visible from the west coast) stands 7,420 feet above sea-level; but, being 35 miles from the nearest sea, it is veiled in haze during the south-west monsoon, though an excellent land-mark for two-thirds of the year. The culminating peak, however, of Ceylon is Pedro Point, 860 feet higher than Adam's Peak, and nearly 20 miles farther to north-east. Between Galle and Colombo much elevated country intervenes between Adam's Peak and the coast. The most useful marks are the Haycock and the Hummocks or Knuckles, which, with other conspicuous hills, will be described under their contiguous ports. The country gets gradually lower towards the north end of the islands. Estuaries of great area, called after ancient Arab navigators "gobbs" separating large tracts of low land from the main, are the peculiar feature of the northern part of this west coast of Ceylon. A peculiarity, at Galle and Colombo, is the bright red colour of the streets and roads, contrasting vividly with the verdure of the trees; the fine red dust penetrates every crevice, and imparts its own tint to every neglected article. Natives resident in these localities are easily recognisable elsewhere by the general hue of their dress. This is occasioned by the prevalence, along this west coast, of laterite, or, as the Singhalese call it, cabook, a product of disintegrated gneiss, which, being subjected to detrition, communicates its hue to the soil. Along the west coast, from Point de Galle to Chilaw, corallines and shells mixed with sand and particles of gneiss are found near the shores. The principal scene of most recent formations is the extreme north of the island, with the adjoining peninsula of Jaffna. Here the coral rocks abound far above high-water mark and extend across the island, where the land has been gradually upraised, from the east to the west shore. Sand covers a vast extent of the north sea-board, the peninsula of Jaffna, and Manaar Island. It is doubtless brought down by the currents of the north-east monsoon from the Coromandel coast, and from the north-west shore of Ceylon in the south-west monsoon, across the shallows of Adam's Bridge; this barrier being formed by a long line of sandy embankments, which shift about materially through the force of the ocean swell in opposite monsoons. Nine or ten streams of some magnitude, beside smaller ones, fall into the sea between Point de Galle and Manaar. The Gindura near Galle; next to it comes the Bentotte river; then the Kaloo-ganga, at Caltura; the Calanygunga at Colombo; the Maha-oya near Negombo; and the Dederoo-oya at Chilaw. The Velookiaur falls into the Puttam back-water, running north to the ocean round the northern end of Calpentyn Island, whereabouts also is the mouth of the Kala-oya which falls into the sea at Dutch Bay. Farther to north are the Moderegam, and the Arive-aur or Aripo river. All these streams are liable, during the monsoons, to overflow their banks and inundate the level country. On the subsidence of these waters, the intense heat of the sun, acting on the surface they have deserted, produces a noxious and fatal malaria, prolific of fever. In some seasons, so deadly is the pestilence that the Malabar coolies as well as the native peasantry betake themselves to flight. Very few of the rivers of Ceylon are navigable, and these only by canoes and flat boats, which ascend some of the largest for short distances. Those which intersect the great high road from Point de Galle to Colombo are mostly bridged; a bridge of boats connects each side of the Calanygunga near the latter place. Off the south-west coast of Ceylon, the bank of soundings extends nowhere so much as 15 miles; to the north of Colombo, only about 10 miles; but to less than half that distance off Calpentyn and Cara-tivo. From the latter place, the edge of the bank trends north-west towards Paumben, and at 15 miles south of that town there is no bottom at 100 fathoms. It is to be regretted that the continuation of the bank off the Tinnevelly coast to Comorin has not yet been examined. Its outer edge cannot therefore be correctly defined, but due south of Comorin it stretches 45 miles off shore. This bank is doubtless the accumulation (throughout many ages) of the Malabar coast sand, picked out by the ocean swell, and borne along by the south currents during successive south-west monsoons. There is very deep water about half-way between Comorin and Galle, where the East India Company steamer 'Zenobia' failed to obtain bottom at 500 fathoms. The Pearl Banks of the Ceylon coast extend several miles to the west and south of Manaar Island, but are not specially depicted on the charts; many of those, however, of the Tinnevelly coast between Paumben and Trichendore are laid down. More care has of late been bestowed upon the pearl oysters of the Gulf of Manaar. They occasionally disappear from banks where many an annual harvest has been reaped, but this disappearance is now known to be owing to the fact that they migrate at times to more favorable situations, for which purpose the oyster can sever its byssus and reform it at pleasure; thus it not only possesses locomotive powers, but their exercise is indispensable to its economy when obliged to search for food, or compelled to escape from local impurities. It is also susceptible of translation from place to place, and thus new beds are formed in positions ascertained to be suitable for its growth and protection. The pearl-divers are chiefly Tamils and Moors, trained for the service by diving for chanks, the name given to shells used by the people of India to be sawn into bangles and anklets. These shells are not only fished up by the divers off the islands of Manaar and Cara-tivo, but dug up in large quantities from beneath the soil on the adjacent shores, in which they are deeply embedded, the land having evidently been since upraised. The apparatus employed to assist the diver's operations is exceedingly simple in its character. It consists of a stone of about 30 pounds weight, to accelerate the rapidity of his descent; this is suspended over the side of the boat, with a loop attached to it for receiving the man's foot. There is also a net-work basket, which the diver takes down to the bottom, and, throwing himself on his face, fills with the oysters as he collects them; this, on a concerted signal, is hauled to the surface. The divers do not ordinarily remain a full minute below, and the most expert cannot continue at the bottom so much as 90 seconds, nor attain a greater depth than 13 fathoms in the pursuit of their calling. The Gulf of Manaar abounds with sharks, but, strange to say, hardly more than one accident is known to have occurred from these creatures during any pearl-fishery since the British have had possession of Ceylon. Point de Galle bears from Cape Comorin S.E. ¾ E., distant 66 leagues. Ships crossing from the Cape in the south-west monsoon ought not to steer a direct course, as they are liable, at times, to experience a current setting to the east into the Gulf of Manaar. A south-east or S.E. ½ S. course will be safer until they get nearly in the latitude of Point de Galle. They may then steer to the east and make it in daylight, if bound for the Bay of Bengal or the Coromandel coast. The coast about Point de Galle must be approached with great caution during the night on account of the rapid currents and sunken rocks interspersed at a considerable distance from the shore. Ships bound to the eastern parts of India have no occasion to keep close to the southern coast of

Ceylon, for they lose time by doing so. The current sets into the Gulf of Manaar only at times during the south-west monsoon, for it usually runs about south, south-east or south between Caltura and Galle. It would be imprudent to make the island of Ceylon to the west of Point de Galle, for, if the wind veer to the south, it might be difficult to get round that place, which has been already noticed, in the directions for sailing from Bombay to the south in the south-west monsoon. During the north-east monsoon, a direct course may be followed from Cape Comorin to Point de Galle; the wind blowing then from the gulf is generally more fair for ships passing from the former to the latter than in returning towards the cape. In this season, ships keep near the west coast of Ceylon to Caltura or Colombo, or even to Chilaw, before they make for Cape Comorin. In December and January, when the north-east monsoon blows strong out of the Gulf of Manaar, it is certainly advisable for ships proceeding from the southern part of Ceylon to the Malabar coast not to leave the coast until they have coasted along to Caltura. They may then steer over for the cape close-hauled, and will find the north-east wind increase greatly in strength as the gulf is opened. When they approach the land about the cape, the wind will draw more to the east and afterwards become variable, inclining to land and sea breezes, when near the land to the west of the Cape Mountains. About the changes of the monsoons, the winds often prevail from the west between Cape Comorin and Ceylon, accompanied, at times, by a current setting into the gulf. This renders it advisable for ships passing from the southern part of the island towards the cape, in October, November, March, and April, to steer direct for it from Point de Galle. In the two former months, some ships have been sent to the east by the current and west-south-west winds, so far as to make the coast of India near Manapaud Point. In crossing from Caltura late in March, this happened to the 'Anna.' From March to November westerly winds prevail off the south-west end of Ceylon; it is then difficult for a ship to get to the west from Point de Galle, and after April it is too late to proceed from thence to the ports on the Malabar coast, until October is advancing. Even in April, being off the south or south-west part of Ceylon, bound to Bombay, if a ship can make considerable progress against the westerly winds, it will be prudent for her to pass through the Eight or Nine Degrees Channel, and to the west of the Laccadive Islands, making short tacks occasionally in passing them, to keep up her westing. She will then avoid being embarrassed by the coast, and probably escape bad weather, which is very liable to happen near the coast in May. She may reasonably expect to reach her port of destination more speedily by this means than by keeping near the land, in the track used during the fair season.

THE TINNEVELLY COAST.—To return from this digression, the coast from Cape Comorin goes about N.E. by E. to Manapaud Point. The distance from Cape Comorin to the promontory, situated 1 mile to the south of the village of Ootangoody (called East Cape by old navigators), is 15 miles, and from this promontory to Manapaud Point 20 miles. To the north of Manapaud the shore is low; but to west, towards Comorin, it rises to the height of 100 or 200 feet in undulating sandy hills, and the tops of tall palmyra trees are apparent as emerging from them. The background is mostly of a reddish soil, covered with palmyra trees and bushes, and rising gradually to the foot of the ghauts, which at Cape Comorin approach to within 3 miles of the shore. Numerous fishermen's villages and small white-washed churches line the coast. Landing in a ship's boat is at all times a difficult and dangerous operation. The coast from Cape Comorin to East Cape forms in a deep bight to the north of the former, in which vessels can find considerable shelter from westerly winds, but the swell of the south-west monsoon rolls round into it; therefore no attempt should then be made to land in a ship's boat. The boundary between Tinnevelly and Travancore is situated about 5 miles north-east of Cape Comorin. East Cape stands 15 miles about E.N.E. from Comorin, and bears about S.W. by W. from Manapaud Point, from which it is distant 20 miles. To north of East Cape a considerable bay is formed, where in 4 fathoms a small vessel may find some little shelter from westerly winds and their accompanying swell, which is still further broken by the prominency of the shore-reef between Ootangoody and Idindacaray. This bay was known to former navigators as Covalum. The cape has trees on it, and near the town there is a tuft of trees elevated more than the surrounding land. To the north about 3 miles off there is the mouth of a small river. The shore-reef, between East Cape and Idindacaray (which is 3 miles nearer to Cape Comorin), extends a full mile and perhaps more. The latest chart shows that there is not a distance of 1½ miles between the reef and the 12-fathom sounding. This is probably the spot where H.M.S. 'Thalia' is said to have seen breakers at ¾ mile from her. Cape Comorin bore W. by S. (most probably the isolated conical mount, distant 3 miles north-west from the low cape, as the latter would have been too far off to be visible), and the extreme eastern land N.E. by N. (probably the East Cape). She sounded and shoaled her water suddenly from 11 to 3½ fathoms.

MANAPAUD POINT, in lat. 8° 23′ N., long. 78° 3′ E., 8 miles from Trichendore pagoda, is a high sandy promontory, based on rock, jutting boldly into the sea, and having a small white-washed church on its summit, visible in clear weather at 12 or 13 miles. The breakers extend 3 or 4 miles to the north-east of this point and about 1 mile to the south-east. The town of Manapaud may be known by the ruins of a large church half-buried in sand, and the mouth of a small river, too shallow for internal navigation, opening into the bay to the north of Manapaud Point. There is excellent holding ground in 5 fathoms, mud, to be found near the shore, between the towns of Manapaud and Periyatalay, which are 5 miles apart. This anchorage is only available in the north-east monsoon. In June, July, and August the heavy sea which rolls in upon that part of the coast precludes the possibility of any vessel anchoring there. During these months, when the south-west monsoon is strong, vessels should anchor off either Aulandalay, or Poonnaycauyal, where the coast, trending more to the north, becomes a weather-shore. But if, in coming from the west the navigator passes between Manapaud Point and its outer shoals, he must be cautious of the shoal patches off Aulandalay and not come within 5 miles of the shore in passing them, nor bring Manapaud Point to bear to the south of W.S.W. till the Trichendore pagoda bears N.W. The Manapaud outer shoal has its nearest part at 5 miles to S.E. by E. from the point. Between it and the point a depth of 12 fathoms is found; the same water is to be had all round this extensive shoal. On it are patches of 4, 5, and 7 fathoms. It extends E.N.E. and W.S.W. 10 miles, having an average breadth of 1 mile. From its centre, a tongue of the shoal projects in a northerly direction, the apex of this constituting its northernmost or inner danger, on which is 4½ fathoms, sand; from this part, Manapaud church bears N.W. by W. 5 miles, and Trichendore pagoda (seen in clear weather from above the deck) north a little west, 10 miles. From the central shoal part, where there is 4 fathoms, sand, Manapaud church bears the same as above, distant 8 miles, and Trichendore pagoda N. by W. a little west, 12½ miles; this latter mark, however, is too distant to be seen in any but the clearest weather. There are many other patches with 5½ and 6 fathoms water, over which a vessel might pass. The safest plan, when coming from the west sailing between the Manapaud shoals and the point, is not to bring Manapaud church to the west of north till within 2 or 3 miles of the point, and then a course E.N.E. will take a vessel clear. The soundings off the shore, south of Manapaud, at 1 mile are 6 fathoms, and at 3 miles 9 fathoms, sand and mud. If the passage outside the Manapaud shoal be preferred, a vessel ought not to come under 15 fathoms, which will be 11 or 12 miles off shore, until she has passed Manapaud, when, with the church at that point and Trichendore pagoda in sight, her position cannot be mistaken. As, however, the soundings outside of the shoal are very scanty, the charts exhibiting no depths beyond 1 mile south of the central shallowest patch, no very definite instructions can be given. Coolashekharaputnam is a town on the coast, a little to north of Manapaud, and bearing S.W. by E. 7½ miles from Trichendore pagoda, and nearly 2 miles to the north-west of the extremity of Manapaud Point. Off this town, extending 4 or 5 miles to the north and east, there is a great extent of foul ground, over which there are heavy breakers in the north-east monsoon. It has many small channels which are only known and used by the native craft. The anchorage inside is very insecure, and subject to a heavy breaking sea during the prevalence of east and north-east winds.

TRICHENDORE POINT, in lat. 8° 30′ N., long. 78° 7′ E., lies about 8 miles to N.N.E. of Manapaud Point, and is the next prominent point south of Tuticorin, from whose lighthouse it bears S. by W. 17½ miles, and from Coolashekharaputnam town south, 4 miles. This point is a low rocky bluff headland, covered with sand, and having a remarkable high dark pagoda situated on its extremity, which is seen in ordinary weather from 12 to 15 miles, and sometimes even at 18 miles from aloft. The town of Trichendore is situated at the back of the pagoda. 1½ miles further north, in the bight, lies Veerapandiyanputnam, a town second only to Tuticorin in size and importance, inhabited by fishermen of the Paravar caste. Trichendore Reef is a

dangerous reef projecting 3 miles to the north-east from the point, and affording some shelter for small craft to the anchorage off the large town of Veerapandiyanputnam. This town is situated in the Bay at $2\frac{1}{4}$ miles W.S.W. from the northern extremity of the reef, and to round the reef it must be brought to bear S.W. by W., as further to the north comes the foul ground of Coolashekharaputnam Reef. To the east of Trichendore Reef the soundings regularly increase till, at 6 or 7 miles distance, the Pearl Banks are found. These are little patches with 7 or 8 fathoms water, the surrounding water being from 1 to 3 fathoms deeper. To the south of Trichendore Point, the foul ground extends about 1 mile from shore till abreast of Aulandalay village, off which place there is a small patch of good anchorage at from 1 to $1\frac{1}{2}$ miles off shore, in $3\frac{1}{2}$ to 4 fathoms, mud, with the church bearing W.N.W. distant 2 miles. A vessel is protected here during south and south-west winds by the projecting part of a reef to the south, which stretches out to more than 3 miles from the shore. Eastward of the above anchorage about 3 miles, there is one shoal patch of $3\frac{1}{2}$ fathoms with 9 fathoms round it. Another shoal of greater extent and with less depth of water, viz., 2 and $2\frac{3}{4}$ fathoms, lies about 2 miles to the south-east of the above anchorage and 6 miles north-east of Manapaud Point. Both these shoals are situated about 4 miles to the south-east of Trichendore Point. A third shoal, with $4\frac{1}{2}$ fathoms, bears E.S.E. 3 miles from the pagoda.

COOLASHEKHARAPUTNAM is a considerable town 4 miles south of Poonnaycauyal Creek entrance. Coolashekharaputnam Point is $1\frac{1}{2}$ miles north of the town. The coast is sandy, with cocoanut trees, and there are some hills a little way inland. Between the outer reef and the shore-reef there is only water enough for coasting craft. The outer reefs break the swell, and render the water much smoother inside. Coolashekharaputnam Reef is dangerous and commences at $2\frac{1}{2}$ miles N.E. by N. from the town, with 10 feet water on its northern extremity, and extends (with the exception of a break off the little Paravar village of Aulandalay) as far as Manapaud Point. The outer edge lies from $1\frac{3}{4}$ to $2\frac{3}{4}$ miles off shore, and has, in heavy weather, a high surf rolling over it in $2\frac{1}{2}$ to 3 fathoms; but ordinarily the sea only breaks on an inner ledge, in from 2 to 12 feet, from 2 to 4 cables' lengths within the former. Many small channels exist between the rocks composing the reef, of which the dhonies, or small trading craft, take advantage, but the channel inside is not good. The mark for the largest channel is the Periyamullay Hill (the highest of the two most conspicuous, and often the only hills visible inland) anywhere between the two large trees at the town of Coolashekharaputnam.

POONNAYCAUYAL is a small fishing village, situated about 1 mile from the sea, whence it is approached by a creek, the mouth of which bears S.S.W. $\frac{1}{2}$ W. $9\frac{1}{2}$ miles from Tuticorin Lighthouse. Poonnaycauyal is easily distinguished by the ruin of an old square-built church, with a scanty tope of palmyra trees on the beach to the southward of that building. Cauyal, the great emporium of trade, mentioned as 'the Key of Hind' by Marco Polo, in the twelfth century, lies between Poonnaycauyal and Tuticorin. The ruins of the ancient city are about 2 miles from the sea, near the mouth of the Tambrapurny river. Tuticorin (though its roadstead is no better than that of Cauyal) is now the principal port of Tinnevelly. Off Poonnaycauyal, there is anchorage in 4 fathoms, rather more than 1 mile from the shore, with the tope, or plantation of trees, bearing W., where, with the wind at S.W. to S., vessels will be protected by the Coolashekharaputnam Reef. Extending to the east beyond the above anchorage, there is a natural deep basin, which is $4\frac{1}{2}$ miles in length east and west, and averages $1\frac{1}{4}$ miles in breadth. The bottom is fine sand and mud in 7 fathoms on the western side (at the distance of 2 miles east of the Poonnaycauyal tope), and 18 to 20 fathoms on the eastern extreme, from which it suddenly shoals to 9, 8, and $7\frac{1}{2}$ fathoms on a pearl-bank. When standing up the coast during the night, with a scant wind, this is good ground for ascertaining a vessel's position, as there is no spot like it between Paumben and Cape Comorin. From the outer part of this deep basin, the anchorage off Tuticorin bears N. by E. $9\frac{1}{2}$ miles. In the day-time the high ghauts are visible to ships navigating this coast. There are some nearer hills, one of which, bearing about W. by N. from Poonnaycauyal, was called by old navigators Poonnaycauyal Peak. Mooranjooliteev nearly 2 miles south of Devil's Point, is the southernmost of the islets that front Tuticorin, and is also the southernmost island along the Indian shore of the Gulf of Manaar. Numerous pearl-banks lie from 3 to 9 miles to east of these islands. The greatest depth at low-water, in the channel across the sandy barrier between this islet and the main land, is 13 feet, at the distance of 4 or 5 cables to the south-west of it. To the north of the barrier towards Devil's Point the water deepens. From a short distance to the south of this islet till abreast of Poonnaycauyal tope, there are occasional patches of rock found. The anchorage is good in general, along this part of the coast in $3\frac{1}{2}$ to $4\frac{1}{2}$ fathoms, mud, between $1\frac{1}{2}$ and $2\frac{1}{2}$ miles from the shore.

TUTICORIN TOWN AND HARBOUR.—This, the largest commercial town on the Indian shore of the Gulf of Manaar, is situated 18 miles to N. by E. of Trichendore Point, and bears from Veippaur Point S.S.W., 14 miles. The land about Tuticorin is low and sandy, with palmyra trees near the town. On the northern side of the town there are a flagstaff, a tower on the beach, and a Protestant church. On the southern side there is a Roman Catholic church, with some screw-houses where cotton is pressed. The harbour is fronted by several low islands and banks, running north and south, or parallel with the shore, at about 2 miles distance. Outside of these banks is Tuticorin roadstead, with anchorage in 5 to $6\frac{1}{2}$ fathoms, sand. On the northern point of one of the islands, called Paundiandeev, or Hare Island, there is an obelisk, from which a light is exhibited. There are two channels for small craft into Tuticorin Harbour, but that to the north is so intricate as to be seldom used. The southern channel leads between the southernmost island and the main land. The reef connecting them has to be crossed in 12 to 14 feet water, at a distance of from $\frac{1}{2}$ mile to $1\frac{1}{2}$ miles of the island. This being passed, a course may be steered for Devil's Point on the main land, after closely rounding which, a small vessel may stand direct for the town of Tuticorin, carrying soundings of 11 to 9 feet. Before passing Devil's Point, a depth of $2\frac{1}{2}$ fathoms is found, sand and mud. Devil's Point (close to which vessels must pass in entering Tuticorin Harbour by the southern entrance) bearing S.S.W., and distant $1\frac{1}{2}$ miles from the lighthouse, is a low sandy cape, with sparse bushes on it. The shore, inland of it, is swampy and intersected by creeks. The channel, between the point and the islet of Kiravoonjateev, has a width of only 3 cables' lengths. The column in lat. 8° 47′ 10″ N., long. 78° 11′ 20″ E., on which the light at Tuticorin is exhibited, is coloured brown. The light is fixed, at an elevation of 85 feet above high water, and is visible about 14 miles off from a vessel's deck. The town of Tuticorin bears W. by N. $2\frac{1}{2}$ miles from the light. The best anchorage in the roadstead is in from $5\frac{1}{2}$ to $6\frac{1}{2}$ fathoms, with the light-house from W.N.W. to W. by S., distant about $1\frac{3}{4}$ miles. During the months of August and September, when strong winds blow invariably from the land, vessels may anchor in 5 fathoms, but should not approach closer than that depth, as a ledge extends from $\frac{1}{2}$ mile to 1 mile outside the islands, with uneven soundings of from 10 to 20 feet water on it. In making the port at night, a vessel may anchor with the light bearing from W.N.W. to W. by S., about 2 miles off, where good holding ground will be found, 6 to $6\frac{1}{2}$ fathoms. At $3\frac{1}{2}$ miles distance, on the same bearings, the ground is foul on pearl-banks. In approaching from the south, the light may be kept about N.N.W., till within 3 or 4 miles, when the above anchorage may be selected. When coming from the north, a vessel may keep the light bearing about S.W. till within 3 or 4 miles, when she must steer more out for the anchorage. In no instance ought the water to be shoaled under $6\frac{1}{2}$ fathoms, excepting with the bearings on for the anchorage, and then not under 6 fathoms. In the north-east monsoon, vessels should lie with a good scope of cable out, as, although the seas are not heavy, they are sharp and occasion a chain to jerk. The sea-breeze, at this time, blows on to the reef; and a second anchor, with chain ranged, ought always to be kept ready for letting go. In the south-west monsoon, which usually lasts from the middle of May to the middle of August, this port may be made without fear; for, although the winds are very violent, they are invariably off shore from west to south-west, accompanied by smooth water. At this time, vessels may approach the reef to 5 fathoms water, but should always have a stream anchor to seaward, as, occasionally during the lulls of the monsoon, a light air comes in from the east. Tides are very irregular; the flood sets to the north, and the ebb to south. Past Devil's Point they run 3 knots an hour. Spring tides rise $2\frac{1}{2}$ feet; neaps $1\frac{1}{2}$ feet. High-water at full and change occurs at 1 hour 15 minutes. In the north-east monsoon, vessels from Europe, bound to Tuticorin, should keep the west coast of Ceylon in sight as far north as Calpentyn, or until they can fetch across to Tuticorin. In sailing from Bombay or the Malabar Coast at the same season, after rounding Cape Comorin, the Indian shore may be kept aboard, till abreast of Manapaud Point; a vessel may then stretch across to the Ceylon coast with advantage,

and probably on the next tack to the north-west she will fetch Tuticorin. In the north-east monsoon, that is, from November to March inclusive, fine weather with land and sea breezes will be found to prevail on the Ceylon side of the gulf. Good anchorage may always be selected between Colombo and Chilaw, at 1½ to 3 miles off shore, in 6 to 9 fathoms, sand. Vessels wishing to beat up during the first three months, November to January, ought to keep over on the Ceylon side till they have advanced sufficiently far to make certain of their port, if bound to Tuticorin, as the breezes on the Indian coast may be expected to blow steadily and strong from N.N.E., with a strong lee current. In navigating the western side and head of the Gulf of Manaar, great attention must be paid to the lead. Unless they have a good pilot on board, or good charts, vessels should not shoal to less than 18 or 20 fathoms, below Manapaud, nor to less than 12 fathoms to the north of that place. The currents are so irregular in their direction and velocity that no reliance can be placed on their exact set. In the south-west monsoon a vessel, on leaving Tuticorin, ought to keep over on the Indian side till near Manapaud Point, whence she will generally be able to fetch to windward of Colombo, and be clear of all dangers along the western side of Ceylon. In the south-west monsoon, when bound to Tuticorin, from whatever port they may come, vessels must sight and round Cape Comorin, and keep along the Tinnevelly coast. Some few years since, it was considered a hazardous undertaking for vessels of any size to proceed far up the Gulf of Manaar; more particularly during the south-west monsoon, when it was supposed to be impossible to beat out again. Later experience, however, has shown that no dangers exist that may not be avoided by ordinary care and attention; and that, as regards working to windward against the monsoons, no difficulty will be experienced if the instructions be attended to.

VEMBAUR.—This town, at which is the boundary between the provinces of Madura and Tinnevelly, bears about W. by S., ½ S. 18 miles from Vaulinokkam Point. The intermediate coast, which is all low and sandy and well planted with palm trees, forms a considerable bight, at a distance of some 4 or 5 miles north-east of Vembaur. Scattered shoal banks extend off this shore for more than 5 miles; no vessel should therefore attempt to sight the land. The Veippaur River falls into the sea between the village and the point of the same name, which bears S.W. ½ W., 7½ miles from Vembaur. This is a very shallow coast, the line of 3 fathoms water being 3 miles off shore; one shoal patch, having only 9 feet water, lies 5 miles east of Veippaur town. To the south-south-east of Veippaur Point there are two or three sandy low islets, called Shoolliteev. The outermost of these is in a straight line between Veippaur and Tuticorin Light-house, distant from the former 3½ miles and from the latter 10 miles. Nearly 5 miles west of this outer islet, the coast forms a deep bight, at the end of which stands the town of Putnool Madura, having some large clumpy trees which are visible 9 or 10 miles off shore, when no other land-mark is visible. As a rule, vessels of size ought not to approach the land, above Tuticorin, nearer than 6 or 7 miles, on account of the scattered shoal having less than 3 fathoms on them.

VAULINOKKAM POINT, in lat. 9° 9′ N., long. 78° 39′ E., is 2 miles west of Anaparteev, and bears E. by N. ½ N., 18 miles from Vembaur. The town of Vaulinokkam is more than ½ mile within the point, but access to it from the sea may be had at a less distance on its northern side, as it lies on the shore of the considerable bay formed to the north of the point. Nullatunniteev, or fresh-water island, bears S.W. by W., 5 miles from Vaulinokkam Point, and 7 miles W.S.W. from Anaparteev. It is abreast of Keelakaray Point, distant about 1½ miles. The soundings are tolerably regular off it, but no large vessel should come under 7 fathoms. There is a very small islet 2 miles west of it, and another beyond, called Ooppootunniteev, or salt-water island, in contradistinction to fresh-water island, from which it bears W. by S., 5 miles. Anaparteev, a little island, lying 2 miles east of Vaulinokkam Point, has a reef encircling it, and shoal water extending 1 mile to the south-west, between which and the point is the western entrance of the inland navigation along the Indian coast, by which small coasting vessels are enabled to work in smooth water for half the distance between Paumben and Tuticorin. To the south and west of this islet, there are overfalls in the soundings, owing to the many pearl-banks. One shoal patch, with 3¼ fathoms, lies 5 miles south-west from Anaparteev, and 3 miles east of the southern end of fresh-water island. There may be other shoals between this and Tuticorin harbour, but the bank of soundings has not been thoroughly examined. No large vessel should go north of that commercial port. It is a safe rule not to shoal under 12 fathoms above the parallel of 8° 30′ N. latitude. From Anaparteev, the chain of islets and shoals runs in a mean direction about E. by N. for 26 miles to Manauly. The soundings outside them are tolerably regular, but with some light overfalls in a few places. About 4 miles south-south-east of Moolee Islet, which is 10 miles to the west of Manauly, a shoal patch of 2½ fathoms exists amongst soundings of 8 and 9 fathoms, but this is the only dangerous overfall known as yet. No large vessel should, however, shoal under 12 fathoms, or sight these low islands, excepting Manauly and Anaparteev.

MOOTTOOPETT BAY is a large space of smooth deep water, of 5 and 6 fathoms at low water (to the south-east of the town of that name), bounded on the south side by Moolee Islet, in lat. 9° 11′ N., long. 78° 58′ E., and on the south-east by Moosel Islet. Between these two islets (which are 5 miles apart) a shallow and narrow bank exists, forming some shelter from the swell of the south-west monsoon. This bank comes within 12 feet of the sea surface in most parts; but, at one spot, which is about 1½ miles to the east of Moolee, the least depth across is 15 or 16 feet at low water. It has been proposed to deepen this to enable large vessels to enter the bay, which has been named Port Lorne by Sir James Elphinstone, who also proposed cutting a ship-canal (to connect the Gulf of Manaar with Palk Bay) through the narrow Ramnaud promontory.

THE INLAND NAVIGATION.—Small craft in working down from the Paumben Pass during the south-west monsoon will do well to take a pilot and keep inside the islands and banks, which render the water so much smoother, to Vaulinokkam Point. They can there discharge the pilot and work down the Indian coast as far as Manapaud Point, when their fetching Colombo on the starboard tack may be considered certain. In going east by the inland navigation towards the pass during the south-west monsoon, the entrance should be made between Vaulinokkam Point and Anaparteev. The depth here is 5 or 6 fathoms. Anaparteev should not be approached so nearly as 1 mile, till its southern end bears S. of E. The islet may be then passed at half that distance in about 3 fathoms water, and a straight course at N.E. by E. may be kept for the anchorage off Keelakaray. The general sounding along this line is 3 fathoms, shoaling occasionally to 2¾ fathoms, sand. Care must be taken to avoid some reefs nearly awash, lying off Yeroovaudy Point, which is 2½ miles north-north-east of Anaparteev. Keelakaray anchorage has from 2¾ to 3 fathoms stiff mud, with a detached ruin (east of the town) bearing N., and some large terraced houses about N.W. Pilots here come on board to take vessels to Paumben, which lies 26 miles farther east. Should a vessel proceed without such assistance, the following directions must be followed. From Keelakaray anchorage steer east-north-east, with Najimundel Point on the port bow, till a small tope of trees (standing between a hillock at the mouth of a rivulet and an old ruined temple) bears N. Then, for the purpose of crossing a sandy spit which has only 7 feet water in some places, steer about S.E. ½ E., or with the western extreme of the little island Taliary, one point on the port bow; this will lead over the deepest part of the spit in 2¼ fathoms, where a buoy has been placed to indicate the channel. After passing over this spit, the water will deepen to 4 fathoms. Two bungalows at the next point east of Najimundel will then be seen. When they bear N.E. ½ E., steer east-north-east till they are passed, then a due easterly course will take a vessel to the buoys which mark the passage between the shoal banks at Ramasawmy's Choultry. In approaching these buoys, bring the southern one to bear E. by N., when about 3 cables' lengths off, to avoid a sandy knoll with only 7 feet water. Haul more north as the buoys are approached, and, after passing between them, steer on about an easterly course for a high beacon erected on a patch of rocks, about 2 miles to the north of Manauly Island. Passing about half a cable's length to the north of this beacon, stand on for the northern end of Pullee Islet, which must not be rounded within 3 cables' lengths. Keep on about east-north-east till the opening between Pullee and Pullivausel bears S., then steer east, and anchor near the horse-shoe bank channel, which has a buoy to mark its position. No vessel drawing more than 8½ feet water ought to attempt this navigation without a Keelakaray pilot.

MANAULY ISLET, lying 7 miles to the south-west of Paumben Light-house, is the east of a number of islets. These with their fringing reefs and intervening banks, lie at some distance off the Madura shore between Tonitoray and Vaulinokkam Points, thus sheltering a considerable extent of the northern waters of the Gulf of Manaar from

the swell of the south-west monsoon, and affording convenient smooth-water navigation for the coasting craft. The eastern extreme of its fringing reef is 2 miles east of Manauly. The passage between it and the shoal water on the south of Pullee is ½ mile broad; the leading marks through it being Tonitoray Temple, just open to the left of Pullee Islet. A shoal patch, with 2½ fathoms water, lies outside of the reef 2½ miles south of Manauly Islet. The southern extreme of the reef encircling Manauly and Moosel Islets bears 3 miles W. from this patch. Pullee Reef, encircling the three Islets, Pullee, Pullivausel, and Coorisuddy, forms a natural breakwater to protect the Paumben Pass from the violence of the south-west monsoon. Pullee, the west islet, has now a beacon, not far within the western end of the reef, bearing E.N.E., and 3½ miles from Manauly Islet. Shoal-patches of 6 and 8 feet lie about 1½ miles to south of Pullee Beacon, and nearly connect Pullee Reef with the Shingle Islets. (See also Paumben Pass, further on.) The Shingle Islets are 3 miles to east of Pullee Beacon, and 1½ miles to south-east of Coondacam Point (Rameswaram Island). The reef, on which they stand, extends rather more than a cable's length east of them. There is a shoal patch of 2 fathoms lying 4 miles S. by E. from these islets. To avoid this, attention must be paid to the chart, which will be the best guide, if there be not a pilot on board. When going in by the eastern channel, give the Shingle Islets a wide berth of 3 or 4 cables' lengths, to avoid the foul ground off them. A good rule for passing clear is not to bring the high conspicuous tree to bear to the north of N.W. by N. till close in with the southern shore of Rameswaram Island; then haul to the west, and pass Coondacam Point within 2 or 3 cables' lengths. A pole has been erected (1846) on the northern limit of the shoal water inside the Shingle Islets, between which and Rameswaram the deepest water is to be found. The southern end of the passage through the horse-shoe bank, by which vessels have to enter, when going through the Paumben Channel, bears from this pole W. by N.

PAUMBEN PASS.—This most important channel between India and Ceylon, recently so much deepened and improved by blasting and dredging, leads the coasting craft from the Gulf of Manaar into Palk Strait, close along the western end of Rameswaram Island, where the town of Paumben stands. This town is intermediate between the light-house and the western extreme of the island. Its regular inhabitants consist chiefly of boatmen and pilots; and their occupation consists in conducting vessels through the pass, unloading, and lading them. Anchorage-fees and customs are levied by the British Government. The pass consists of a cutting through sand-stone rock, and a dredging through a horse-shoe sand-bank on the Gulf of Manaar side of it. An average depth of 12 or 13 feet water has now been obtained, and further improvement is expected. The approach to the north entrance is marked by a buoy, from which the light-house bears about E. by S., and is 7 cables distant. South of the horse-shoe bank, protecting the pass from the south swell of the south-west monsoon, there is a large coral reef, on which stands the islets of Pullee, Pullivausel, and Coorisuddy, all low and sandy, with stunted bushes. Eastward of this reef there lies another, on which stand the Shingle Islets, bearing S.S.E., 3 miles from Paumben Light-house, and 1¼ miles from the nearest shore of Rameswaram. There are channels round both east and west sides of the above reefs, by which small vessels approach the Paumben Pass. For the west channel, between Manauly and Pullee Islets, the leading marks are Tonitoray Temple just open to the left of Pullee Island. A fixed catadioptric fourth order is exhibited to the north-east of the town of Paumben and 1 mile east of the pass. It is 97 feet above high-water mark; but its column, which is circular, is only 72 feet from base to vane, as it stands on an elevated piece of ground. The light is visible all round the compass, and seen 14 miles off in clear weather.

RAMESWARAM ISLAND, lying between Adam's Bridge and south-east cape of Hindostan, is low and sandy, and well planted with cocoanut trees towards its western end. In length, nearly east and west, it measures 14 miles. Its eastern half is merely a narrow strip of sand, but the breadth of the island, where the great temple stands, is nearly 5 miles. It is uncultivated, and principally inhabited by Brahmins and their followers, who are supported by the profits derived from the temples. The village of Tanicody, at the eastern extreme of the island, bears W. by N. ½ N. 16½ miles from the west end of Manaar Island. The Great Temple, or Coil, stands on a piece of rising ground on the northern part of the island, bearing north-west 10 miles from Tanicody, and E. ½ N. 5 miles from Paumben Light-house. Its height is about 120 feet, and, with its majestic towers, its vast and gloomy colonnades, and its walls encrusted with carved work and statuary, it exhibits a grand example of the style of such monuments in Southern India, though inferior in dimensions to those of Seringam, Madura, and Tanjore. Thousands of pilgrims from all parts of India resort here. To the south of the Great Temple there is a fresh-water lake, about 3 miles in circumference. The town of Rameswaram stands north-east of the lake and south-east of the temple, on the east sea-face of the island. Coondacam Point (the south-west point of Rameswaram Island, between which and the Shingle Islets lies the east channel to and from Paumben Pass,) bears S. ½ E. nearly 2 miles from the light-house. The extreme point is low and sandy, but cocoanut plantations commence about a cable from it and extend towards the town of Paumben and to the north-east, where a high conspicuous tree stands about ¾ mile from the point. This point bears E.N.E., and is 2½ miles from Pullee Beacon.

ADAM'S BRIDGE.—Adam's Bridge is a narrow ridge of sand and rocks, mostly dry, forming the head of the Gulf of Manaar. With the islands of Rameswaram on the Indian and Manaar on the Ceylon side, it nearly connects the latter with the continent. It extends 16 or 17 miles nearly east and west, and is composed of shifting sand-banks with small intricate channels between them, in which the average depth is 4 feet at low water. The edge of the bank of soundings is 12 miles to the south-west of Adam's Bridge. Small native craft often pass through the channels of the bridge to escape payments of the dues which are charged for the Paumben Pass.

MANAAR ISLAND.—This is separated from the main land of Ceylon by a very narrow channel, which is said to have 10 or 12 feet water in some places. It is about 15 miles in length east and west, and its west point bears N. 53 miles from the north-west point of Calpentyn Island. The town of Manaar is at the eastern end of the island, amongst cocoanut trees, and has an old fort. Manaar was anciently the seat of the pearl-fishery; but, at the present day, its importance has greatly declined. During the early ages, a considerable portion of the trade, between the east and west coasts of India, was carried on through the narrow channel which separates Manaar from Ceylon, and active establishments were formed, not only at Mantotte on the main land, but in the little island itself, to be used for unloading and reloading such craft as it was necessary to lighten in order to assist them over the shoals. The fort at Manaar, in lat. 8° 59′ N., long. 79° 53′ E., built by the Portuguese, and strengthened by the Dutch, is still in tolerable repair. The village has plenty of cocoanut trees, and presents an aspect of industry and comfort. The country beyond is sterile, covered only by stunted trees. The most singular objects in the landscape are a number of the monstrous Baobab trees, whose importation, from the west coast of Africa to India and Ceylon, is a mystery as yet unsolved. One of the largest of these, at Manaar, measured upwards of 30 feet in circumference, although it was a very little more in height. The sea-face of the centre of the island has low sand-hills for about 5 miles. The western end has abundance of cocoa and other palm trees by the villages. The barren sand-drifts of this island are adapted to the growth of the palmyra and cocoanut palm, though incapable of producing sufficient grain for its inhabitants. The bank of soundings extends 17 miles to the south-west of Manaar Island.

BEGINNING OF THE COROMANDEL COAST.—A description of this is best commenced with the Paumben Pass and the Indian shore from that place to Point Calimere. The Madura coast extends from Tonitoray to Cottapatam, in lat. 9° 58′ N. and long. 79° 15′ E. Just to the north of the latter place a narrow sand-bank projects off shore 13 miles to the east, which may be said to mark the boundary between the Madura and Tanjore districts. The Tanjore coast extends from Cottapatam round Point Calimere and beyond Negapatam. The Paumben Pass northern entrance lies nearly 6 miles to the west of the Great Rameswaram Temple, and about 1 mile to the west of Paumben light-house. Some account of it has been given above in describing the Gulf of Manaar. Vessels drawing more than 12 feet cannot pass through yet, but the approach on the northern side is clear of all obstructions to navigation. Paumben light, in lat. 9° 17′ N., long. 79° 12′ E., is fixed 97 feet above sea, and visible 12 miles off. Its column is circular, and about 50 feet high. The light may be steered for on any bearing between S.W. and S.E., but the pass must only be entered by daylight, and a Government pilot must be taken. Tonitoray Point, about 2 miles to the west of Paumben light, is the eastern extreme of the Ramnaud promontory (the eastern portion of Madura), the coast of Madura hence trends to W. by N. and W.N.W. for some 12 miles to the mouth of Veigay

river and Attangaray town; and thence round north-west to Deviputnam, whence it takes a general direction of N.W.E. to Cottapatam, beyond which the Tanjore coast curves round by the north and east to Calimere. The principal towns on this coast are Deviputnam, Tondy, Meenpessel, and Cottapatam, in the province of Madura; and Adiramputnam, in Tanjore, in lat. 10° 20′ N. and long. 79° 20′ E. From the last town to Point Calimere (a distance of 28 miles) there is only one small fishing village, that part of the coast being very low and intersected by numerous small creeks and rivulets, which overflow the country for a considerable distance from the sea. The entrance of Moottoopett, the largest of these rivulets, is 19 miles west of Point Calimere, and off it there is a mud flat, on which was found only 3 feet water at low tides. This and the other creeks communicate with an extensive backwater, which is only navigable by the smallest description of trading boats. From the town of Adiramputnam to Tonitoray the whole coast is thickly populated, principally by Hindoos, though there are a few Mahomedan traders. The coast is low and sandy, some parts are well cultivated with grain, and in the vicinity of towns and villages there are extensive groves of cocoanut trees. The principal produce is salt, which is procured from salt-pans on the banks of creeks that intersect the whole coast. In all the towns and many villages there are remains of large temples and some fine choultries; the latter are still kept in tolerable repair for travellers. At the village of Shalwanaiackanputnam there is a splendid column erected in the middle of a small fort, both of which were built by the Rajah of Tanjore, in 1814, to commemorate the victories gained by British troops over those of France. The soundings along this coast are regular, there being 4½ and 5 fathoms at the distance of 6 miles off shore, from thence it shoals gradually to the beach. There is a narrow sand-bank, extending 13 miles off shore, from a low point, in lat. 10° 2′ N., long. 79° 19′ E., on which there is only 1 and 2 fathoms water. In passing this part of the coast a vessel ought to be kept out in 6 fathoms, which would take her clear of the bank. There is a small rocky patch, with only 2 fathoms on it, due south of the bungalows on Point Calimere. By keeping in a line of soundings of 3¼ to 4 fathoms, about 3 miles off shore, a vessel would pass outside of these rocks and foul ground off the point, and inside the north-east boundary of the outer reefs. The channel between these dangers is 1¾ miles wide, with from 3 to 4½ fathoms water in it. Off the extreme point of Calimere there is a sand-bank that extends 1 mile off shore, on which the sea beats very heavily. This bank affords tolerably good shelter to the trading boats in blowing weather. In the Gulf of Manaar and Palk Bay the south-west winds generally commence about mid-April, with fine clear weather. Early in May the monsoon blows fresh, and continues until mid-August, when it moderates, and gradually dies away about the end of September. The sky then begins to be overcast with dark clouds, and about the 10th of October the north-east monsoon commences, with hard squalls from all quarters, accompanied by heavy rain, thunder, and lightning. This weather continues during the month, the wind then becomes steady from north-east, but during the months of November, December, and January there are frequent gales and much rain. In the early part of February the north-east winds take off, and regular sea and land breezes set in, which continue until mid-March, when calms prevail for several days, and the weather becomes very warm, until the return of the south-west winds in April. A ship being in 18 or 20 fathoms water, abreast of Point Pedro Shoal, and bound to Negapatam in the south-west monsoon, should steer north-west by north 8 or 10 leagues, taking care to keep in soundings. If the water deepen after having run a few leagues to the north of the head of the shoal, she ought to haul more to the west, and keep in from 12 to 16 fathoms. The wind often draws to west, or to north-north-west, with a strong current sometimes running to the north, rendering it difficult to get near the land between Point Calimere and Negapatam, when a ship is far out in the offing. In the south-west monsoon the currents on the east coast of Ceylon, from 40 to 50 miles off shore, set mostly to the south or south-south-east, according to the direction of the land. If passing in sight of the lowland about Calimere Point, a large ship should not come under 6 or 7 fathoms towards the shoal flat projecting from that point. She will in this depth pass the point at the distance of 2½ or 3 leagues. She should steer afterwards along the coast in 8 fathoms, which will lead outside the 3 fathoms' shoal, situated to the south of Negapatam. When the white house, which is about 5 miles to the south of that place, bears to the south of west, she will be clear of its northern extreme, and may haul in for the road and anchor in 5 or 5½ fathoms.

Calimere Point (the beacon), in lat. 10° 18′ N., long. 79° 52¼′ E., is low, covered at high tides, and not to be approached under 5½ or 6 fathoms. The two pagodas, called Point Calimere Pagodas, in lat. 10° 22½′ N., long. 79° 51½′ E., stand east and west of each other, about 1 mile inland, and 5½ miles to the north-north-west of the beacon on the point. From these pagodas the direction of the coast is about north ½ west to Negapatam, distance 20 miles. All the land in this space is low, and planted with cocoanut trees near the sea. In lat. 10° 28½′ N., about 6 miles to the north of the two pagodas, there is a remarkably tall cocoanut tree by itself, and 3 miles farther a tuft of the same trees much higher than the rest, which bears west from the southern end of Negapatam Shoal. In lat. 10° 36′ N., about 5 miles to the north of the tuft of trees last mentioned, there is a clump of thick bushes, or small trees, a little elevated, which is the first thing seen in making the land from the south-east. It rises in the form of a saddle, when viewed from 17 or 18 fathoms water, 5 or 6 leagues off shore. This saddle-bush is at a small distance from the sea, and about 1½ miles to the south-south-west of a sand-hill near the beach, which has on it some cocoanut trees, and bears due west from the northern end of Negapatam Shoal. Close to the sand-hill, on the northern side, a white house is perceived among the trees near the beach, which is also a mark for the northern end of the shoal. Negapatam Shoal extends nearly north and south about 6½ or 7 miles, and is little more than 2 cables' lengths across on any part; it is composed of hard sand and stones, having from 24 feet on its southern part to 19 feet at its northern part. About mid-channel between it and the shore, the depths are from 3½ to 4½ fathoms, and 5 fathoms close to its inner edge. The southern end of the shoal is distant from the beach about 3 miles, and the northern end about 4 miles. The depths close to the shoal on the outside are 6 and 7 fathoms. A ship bound to the north ought not to come under 7½ fathoms until to the north of the sand-hill and white house among the trees near the beach, or until Negapatam flagstaff, or the Black Pagoda bears N.W. ½ W., or N. W. by N. She may then haul in, over some knolls that lie near the head of the shoal, which if the flagstaff bear to the N. of N.W. ½ W., will have overfalls of 7 to 5 fathoms on them. From 21 feet water on the northern point of the shoal, Negapatam flagstaff bears north-west, distant 8 miles, and the sand-hill about west. The 3-fathom patch of Negapatam Shoal is in lat. 10° 36′ N., abreast of the saddle-bush, above noticed. The anchorage at Negapatam during the fair season is in 5 or 5½ fathoms soft ground, with the flagstaff about west or west by south, off shore 1½ or 2 miles. When the weather is unsettled, ships should anchor out in 6 or 7 fathoms, with the flag-staff W. ½ S., and the highest of the five pagodas north-west, good holding ground. Fresh provisions for present use may be obtained, with vegetables, fruit and rice; but firewood is scarce. The watering place is at a great tank, about ½ mile up the river. Ships generally employ the country boats to bring off water, as it might be dangerous to use their own, on account of the surf, which breaks high on the bar with any swell. The rise of tide on the springs is about 3 feet; high water about 5 hours on full and change of moon.

Negapatam (the Fort) is in lat. 10° 46′ N., long. 79° 50′ E. The town lies to the north of the Fort, near the entrance of a little river capable of receiving small country vessels, which has a north and south entrance, the land between them being an island. The boats use the windward entrance in passing out, and the leeward one in returning, according to the monsoon. The bar is tolerably smooth in fine weather, when ships' boats may go over it into the river. They cannot land anywhere else on account of the surf. A considerable trade is carried on at this place by small coasting vessels; and, as it is now the terminus of the Great Southern India Railway, a good number of ships and steamers make use of this roadstead. An Act passed in 1867 by the Madras Government decrees that "The ports of Negapatam and Nagore shall be treated as one and the same port; every vessel, in respect of which port-dues shall have been charged and taken at one of the said ports, being exempted from the charge of entering the other port." About 1½ miles north-north-west from the Fort stands the old Black Pagoda, which is one of the most conspicuous objects in approaching this part of the coast. The whole of the coast has a low, drowned aspect when first seen from the offing, and is mostly a sandy, barren soil, planted with cocoanut trees in many places. Negapatam now shows a fixed fourth order dioptric white light on a white tower, at 79¼ feet above sea, and visible 14 miles off, in lat. 10° 45′ 30″, long. 79° 50′ 20″. Nagore, five White Pagodas are in lat. 10° 49′ N., distant about 4 miles from Negapatam, or 3 miles from the Black Pagoda, the direction

of the coast between them being nearly north. These White Pagodas are excellent sea-marks for distinguishing Nagore River, which is close to them on the northern side, and where a great trade is carried on in piece-goods, rice, &c. There are 8 feet on the bar at high-water during the springs; the rise of tide about 3 feet, and it flows to 8¼ hours. Several vessels of 200 and 300 tons burthen belong to this place, and are navigated by natives, who conduct them to the coast of Sumatra, Acheen, Malacca Strait, and other parts on the eastern side of the Bay of Bengal, where they have a constant trade. The best anchorage is with the following bearings:—Light-house from W. by N. to S.W. Highest tower from N.N.W. ½ W. to N.N.W. in 4½ fathoms water. During the N.E. monsoon ships should anchor in at least 5 fathoms. The coast is low, and at times inundated near the mouth of the river. Caricaul, a small French settlement subordinate to Pondicherry, about 10 miles to the north of Negapatam, and about 2 leagues from Tranquebar, may be known by a bushy tree near it. Ships may anchor abreast the Caricaul River in 5 or 6 fathoms; but the entrance is not easily perceived, being formed by a narrow point of sand extending along the coast. The opening is to the north, nearly parallel to it, which is the case with most of the rivers hereabout. About a mile to the south of Caricaul River is Colancherry River; and between this and Nagore is Tiroomaley River: the bars at the mouths of these small rivers render them navigable only at high water by boats, or small country vessels called chilingas. On Caricaul flagstaff, in lat. 10° 55′ N., long. 79° 50′ E., a fixed light is now shown, 65 feet above high-water, and visible 8 miles.

Tranquebar, in lat. 11° 1′ N., long. 79° 51′ E., bears about north from Nagore, distant about 4 leagues, and is easily known by the fort and houses having a neat appearance, and being generally very white. In coasting along from Negapatam to Tranquebar, the shore may be approached to 6 fathoms. The depths are 5 fathoms about 2 miles off, 7 fathoms about 3 miles, and 12 fathoms about 6 miles off shore. In passing the river at Tranquebar, a ship ought not to come under 6 or 7 fathoms, on account of a bank projecting to a small distance from the shore. From Tranquebar, the coast extends nearly north about 7 leagues, to the entrance of Coleroon River, and may be approached to 6 or 7 fathoms regular soundings; but 10 or 11 fathoms are good depths to preserve in coasting. To the north of Tranquebar, at 2 leagues distance, lies the village of Cauveryputnam, in lat. 11° 8′ N., close to the mouth of the river called New Cauvery. Near it two small pagodas stand at a little distance from the sea. The small river Trimalvausal, taking its name from a pagoda that is seen inland, is about 2 leagues to the north of Cauveryputnam, having a bank stretching nearly a mile from its mouth; but as the depth in the approach to it gradually decreases, it is not dangerous. The land to the north of this river is rather higher than the coast to the south, which from Point Calimere is all very low, and only discerned from the offing by the trees and buildings. On the southern part of the coast, the bank of soundings is very flat to 20 fathoms about 5 miles off; but from 70 fathoms about 8 or 8½ leagues from the land, it has a steep declivity to no ground, 100 fathoms. To the north of Nagore soundings do not extend so far out, the depths from thence being generally 40 or 45 fathoms about 5½ or 6 leagues off shore. The bank shelves suddenly, from 45 or 50 fathoms to no ground. Coleroon River, in lat. 11° 23′ N., has within the entrance a small island, with the Fort of Devicottah. It may be known in coming from the south by the land terminating in a point on the southern side of the river, the direction of which being first north, from thence turns to north-north-west and north-west by north about 3 leagues, to Porto Novo, forming a kind of bay. But the best mark to know this place is a thick plantation of trees near the sea, called Coleroon Wood, which is higher than the other land, and when first seen from sea, appears like a low, level island, sloping towards each extreme. Inland are situated four remarkable buildings, called the Chidambaram Pagodas; when just touching the southern part of Coleroon Wood, they bear W. ¼ N.; when on the middle of it they bear W. They will not be perceived if a ship is well in shore, until they open to the north of the wood, bearing then W. by S. ½ S. Codiampolliem, in lat. 11° 22′ N., is a village near the mouth of Coleroon River, and is the northernmost port of Tanjore district. Then commences the district of South Arcot, which extends to Covelong; beyond that to Poolicat is the district of Madras.

Coleroon Shoal projects 5 miles to north from the river entrance, and stretching to the south joins the shore about the southern part of Coleroon Wood. The inner part of it is dry at low water, and from 11 to 12 fathoms near the outer edge, it is steep to 3 or 4 fathoms. A large ship, in coasting along here, should not come under 15 fathoms in the night, nor under 12 or 13 fathoms in the day, toward this shoal. H.M.S. 'Falmouth' standing in towards the shoal in the night, intending to tack in 12 fathoms, but missing stays, got into 4½ fathoms, and was obliged to anchor; the weather being moderate, they warped out in the morning and made sail. It may be observed that the water shoals more suddenly in standing towards the shore about Coleroon than at any other part of the coast. When the southern Chidambaram Pagoda is on with the southern part of Coleroon Wood, you are abreast the southern end of the shoal, which does not extend far out. When the two middle pagodas are in one, bearing W. S. W. and Porto Novo flagstaff W. by N. ½ N., a ship will be in 12 fathoms, near the northern end of the shoal, which is here nearly 3 miles distant from the shore. A ship bound for Porto-Novo should bring the flagstaff W. by N. When the two middle Chidambaram Pagodas are bearing W.S.W. ½ south, she will then be clear of the northern end of the shoal, and may haul in for the road; or if in 18 or 20 fathoms, she may haul in for it, when the flagstaff bears W.N.W. Porto Novo, in about lat. 11° 30′ N., and 3 leagues N.N.W. of Coleroon River, is a place of some trade. The road affords good anchorage in southern winds, being sheltered from these by Coleroon Shoal, which breaks the swell. Ships may anchor in 6 fathoms, mud, good holding ground, with the southern Chidambaram Pagoda S.W. ¼ W. and Porto Novo flagstaff W. ½ N. off shore 2 miles. The river is small, navigable only by boats and country vessels. Water is procured from a tank a little way up, but it is brackish, and of a pernicious quality. There is an iron foundry here, the light from which, it is thought, may sometimes be mistaken for the light at Pondicherry. (See remarks on Pondicherry.) Cuddalore Town and River, in lat. 11° 43′ N., long. 79° 46′ E., bears from Porto Novo nearly N. by E., distant about 3 leagues. The coast is safe to approach to 7, 8, or 9 fathoms, from 2 to 3 miles off shore. A little to the north of Porto Novo begin white sand-hills near the sea, which extend along shore, and from the offing appear like islands, being higher than the adjacent coast. The anchorage at Cuddalore is in 5 or 6 fathoms, good ground, with the flagstaff N.W. by N. to N.W. ½ N. and the first tuft of trees to the north of the bar N.W. by W., when the backwater or river will be distinctly seen. The flagstaff will appear between two high, sandy hillocks, but rather nearer the southern one, and the white building and church in the centre between the south sandy hillock and the tuft of trees at the bar. The river is small, shut up by a bar at the entrance, and navigable only by boats. Water, fresh provisions, vegetables, fruit, and other provisions are got at this place. The ruins of Fort St. David lie 2 or 3 miles to the north of Cuddalore, from which a bank projects a little more than ½ mile to seaward. From Cuddalore to Pondicherry the coast extends about N. by E. 5 leagues, being low and sandy near the sea, and may be approached with safety to 8 or 9 fathoms, the soundings decreasing regularly to 7 fathoms about 1 or 1½ miles off shore. From 42 or 45 fathoms, about 6 leagues from the land, the bank has a steep declivity to no soundings. In coasting along from Point Calimere to Pondicherry, a ship may at discretion keep in soundings between 10 and 14 fathoms. Except when passing Coleroon Shoal, she ought not to come under 13 or 14 fathoms. Captain Driver, of the ship 'Clyde,' states that he got into shoal soundings on a bank off Cuddalore: having made the land off Porto Novo, and steering occasionally N.N.E. along the coast, in 12 and 13 fathoms, shoals suddenly to 5 fathoms, and had many casts from 5 to 6½ fathoms, then hauled more off, and soon deepened.

Pondicherry, in lat. 11° 56′ N., long. 79° 50′ E., is situated close to the sea, and easily distinguished by its numerous buildings, having an agreeable aspect when viewed from seaward. To the north-west of the town, on a long, flat hill, there is a piece of remarkable black land at a small distance in the country, having on it a grove or tuft of trees, which is the first thing discerned in approaching this part of the coast, and is a good mark to know Pondicherry. There is a small river, into which the country boats and small vessels enter when trading to this place. In the fair-weather season, from January to October, the common anchorage in the road is abreast the town, in 7 or 8 fathoms, about ¾ mile from it; small ships may moor in 5½ or 6 fathoms; but during the season when stormy weather may be apprehended, it is prudent to anchor well out, in 12 or 14 fathoms, or in what is called the outer road. A fixed light has been established in the square since 1836. It is exhibited all night, 131 feet above sea level, and may be seen, in clear weather, 14 miles. During the north-east monsoon, that is from October to March, vessels arriving at night may find good

and convenient anchorage in 10 or 12 fathoms, with the light bearing by compass from W. to W.N.W. During the south-west monsoon, from March to October, bad weather is not to be apprehended, and vessels may then anchor at night in 6 or 7 fathoms, with the light bearing by compass from W. to W. by N. The positions for anchoring, here recommended, are those which, in the respective seasons, will be found most convenient for communication with the shore. The light from the chimney of an iron-foundry at Porto-Novo, 10 leagues to the south, may sometimes be mistaken for Pondicherry Light; an error which might be productive of disastrous consequences. In clear weather the distinction between the two lights would be sufficiently obvious, from the foundry light changing its brilliancy at the time of feeding the furnaces. In hazy weather this change might be attributed to the variable state of the atmosphere; in which case the soundings must determine the position of the ship. A vessel from the south and bound for Pondicherry, being in doubt respecting the light seen on the coast, should immediately be put under easy sail, and keeping in readiness to manœuvre, stand in shore when the wind will permit, and endeavour to make out the light. The lead should be kept constantly going in order to receive due warning when to stand off; this being especially necessary near Coleroon, where the water shoals suddenly. In crossing the Coleroon Bank, the bottom is sandy and good for anchorage, should the wind from the sea not be too fresh. There is not sufficient depth of water on some parts of the bank for large ships, and by bringing either light on a bearing about N.W. by W. all danger is avoided as far as grounding is concerned. There is reason to fear that if a ship were off Pondicherry, the wind would not permit her to lay up sufficiently soon for the road, particularly in the south-west monsoon. She would find herself past it, or at least obliged to anchor too far to the north in a position very inconvenient for receiving or discharging cargo, or for communicating with the shore. The coast, from Pondicherry to Sadras, is 15 leagues, and the direction nearly N.N.E. The mouth of the Palaur river is more prominent than any other part, and bears N.N.E. ½ E. from Pondicherry. The shore is in general low, with sand-hills in some places fronting the sea. From 10 to 14 and 15 fathoms are good depths to keep, in sailing between these places. From 42 or 45 fathoms, about 5 or 6 leagues off shore, the bank shelves suddenly to no ground. The bottom is mostly sand or gravel in the offing. Conimere, a small river, where there are some ruins of buildings, is about 4½ leagues N.N.E. from Pondicherry. Between them sand-hills extend along the coast; and behind these, the black land from the back of Pondicherry, gradually decreasing, terminates about 1 mile to the south of Conimere. Abreast of this place the anchorage is good in 6 to 8 fathoms, about 1½ or 2 miles off shore. Mercannum, in lat. 12° 12′ N., a place of salt manufacture, having a good road into the interior, is on a backwater about midway between Pondicherry and the Palaur river. Alamparva, in lat. 12° 16′ N., bears nearly N.N.E. ½ E. from Conimere, about 3 leagues. A thick wood and a village are perceived, from whence to the southern point of Alamparva river, which projects a little into the sea, the coast is rather low. The northern side of the river is covered with trees. Several small hills appear in the country. Palaur River mouth, in lat. 12° 27′ N., bearing N.N.E. ½ E. from Alamparva Fort, has its source in the Mysore country; it flows past Arcot and Chingleput to the sea, about 4 miles to the south of Sadras, where it forms a prominent part of the coast. Its entrance is contracted by a bar, or narrow ridge of sand, inside of which the river becomes of considerable width.

Sadras, in lat. 12° 32′ N., lon. 80° 10′ E., bears from the entrance of the small river Alamparva N.N.E., 6½ leagues. The coast between them is generally barren, with some sand-hills. Few trees appear till within 3 leagues of the former place, where is the southern extremity of a thick wood of palmyra trees, extending about a league along shore to the north. Abreast of this wood, the shore being more flat than to the north or south, a ship in passing should edge out a little, into 11 or 12 fathoms. There is another wood about 5 or 6 miles to the north of the former, which appears to project in a point when viewed from the south. From abreast the southern part of this wood, the flag-staff of Sadras may be perceived over the trees that hide the town; for this place is not easily discerned from the sea, on account of the trees with which it is surrounded. Two pagodas may be seen in passing, one to the south, the other to the north; but they are not very conspicuous. This part of the coast is known from seaward by a ridge of hills inland, at the back of Sadras, some of which are very rugged. This ridge is generally called the High Land of Sadras, or Sadras Hills. When the highest of these bears N.W., the town of Sadras is nearly abreast. The coast from Sadras to Madras, extending N. by E., and N. ½ E. about 11 leagues, is generally low and woody near the sea; but inland there are high hills. In coasting along, from 12 to 17 or 20 fathoms are good depths to preserve. A large ship should not come under 12 or 14 fathoms particularly at night, when to the north of the Seven Pagodas, on account of the reef of Tirooporoor. On this part of the coast, the bank, as before, has a sudden declivity, from 40 to 45 fathoms, sand or gravel, about 5 or 6 leagues off shore, to no ground. About 3 or 4 miles off shore at Sadras, the depths are 9 and 10 fathoms, but to the north of that place the coast becomes more steep, those depths being about 2 or 3 miles off. The Seven Pagodas of Mauvellipooram, about 7 miles to the north of Sadras, are not discernible except when well in with the land. Two of them are near the sea, one of which, standing on a rock, is washed by it, and is now nearly destroyed, although this pagoda, it is said, formerly stood at a considerable distance inland, the sea having encroached greatly on the land. Four of them are in the valley near the foot of the south high land, and the other on its extreme point. The view of those in the valley is often intercepted by the woods, particularly when they bear to the west. From the Seven Pagodas to Covelong, the coast extends N. by E. ¼ E. about 3½ leagues. Between them Tirooporoor Rocky Shoal, in lat. 12° 37′ N., projects about 1 mile into the sea, and bears about S.E. by S. from the small hill of Tirooporoor, known by being much nearer the shore than any of the others. This reef should have a proper berth in passing, for it appears to be steep-to, as hereabouts the Rockingham ship struck upon a rock and soon bilged; had 6 fathoms under the bow, 6½ a little way ahead, 5½ under the stern, and 4 fathoms at the main chains. From the wreck two of the Seven Pagodas bearing S.W., and the extremes of the land from north to south by west, estimated distance off shore about 2 miles. Covelong, about 17 miles to south of Madras, is a village now, but was formerly a large town with a fort, called Saadat Bunder. It is 9 miles above the Seven Pagodas, and is a projection of the coast with a dangerous reef extending from it more than 1 mile. Covelong Reef, from 16 miles to 18 miles to the south of Madras Light-house, seems to extend for some distance off shore to the north-east of Tirooporoor Hill. Vessels should not bring the Madras flashing light (seen best from a little way up the rigging) to the east of a north bearing, when abreast of Covelong. St. Thomé, St. Thomas's or Mylapore, in lat. 13° 1′ N., bearing from Covelong N. ½ E. about 5 leagues, is a small town close to the sea, having near it a plantation of palmyra trees. The inland country is hilly, and the northernmost hill, called Mount St. Thomas, in lat. 13° 0½′ N., about 4½ miles from the sea, is easily known in sailing along; being lower than the others, regular and sloping in its shape, and crowned with a church. There are other buildings and trees in its vicinity. From St. Thomas the coast stretches north by east nearly 4 miles to Madras, and is low towards the sea, but safe to approach to 9 or 10 fathoms: between them a black pagoda is seen in passing. The mouth of the Adyar River is about 4 miles to south of the light-house. From Point Calimere to Madras the greater part of the coast is lined with a sandy beach, having a great surf rolling in upon it during both monsoons, which renders it hazardous and imprudent to land at any time in a ship's boat. Along the whole extent of coast, on this side of the peninsula, to Bengal River, the country boats are peculiarly constructed for passing through the surf. Being built without timbers, with their planks sewed together, they bend to its force, and are very easily repaired.

Madras, or Fort St. George, is of course the principal settlement on the coast of Coromandel. The town within the walls of the fort, where most of the Government offices are, is composed of neat and well-built houses, with flat, terrace-roofs. Black Town, which is larger, lies to the north, at a small distance, inhabited by Hindoo merchants, Moors, Armenians, Jews, &c., with some Europeans, who have not houses in the fort or in the extensive suburbs of Madras. The coast, although sandy close to the sea, becomes fertile and of an agreeable aspect at a small distance inland. The water is excellent, and plenty of all sorts of provisions may be procured for a fleet of ships, but firewood is scarce. The following are the Port Regulations. All ships and vessels, other than those commonly known as dhonies, or native vessels, are directed to anchor with the Master Attendant's flag-staff bearing between N. W. and W. ½ N., which will be found the most convenient anchorage for merchant vessels. Commanders of all vessels, coming to anchor in these roads, are advised to attach a buoy

to their anchor; whereby giving foul berths may be avoided, and the position of a lost anchor will be indicated. All vessels should take up such a berth as will enable them to veer clear of all danger, in the event of casting in-shore when they weigh or part from their anchors; especially as the ground-swell, so prevalent here, tends, in spite of all precautions, to cast a vessel in-shore. As ships have frequently parted, and accidents have happened, by riding with too short a scope, the Master Attendant thinks it his duty to caution all Commanding Officers that no vessel is safe with less than 60 fathoms of cable in moderate weather, and 80 fathoms (or more) with a swell. Those unacquainted with Madras roads may be told that, should any jerk be felt, either on the windlass or bitts, when riding with a chain (from the heavy swell which rolls in at times), cable should be veered until the jerk is no longer felt, to prevent parting, and a second anchor should always be ready to let go. Efficient ground-tackling is essential to the safety of vessels in these roads. Surf Signals.—As the surf breaks very high on the beach, the country boats are employed on all occasions where communication with the shore is requisite. The boats belonging to the ships in the road frequently proceed to the back of the surf, where they anchor on the outside of it, and call the boats from the beach to carry on shore their passengers. When the weather is unsettled, with a heavy swell rolling in, the surf is often very high, rendering it dangerous for any of the country boats to pass to or from the shore. When this is the case, a red and white chequered flag is hoisted at the Master Attendant's flag-staff, to caution all persons against landing from ships, which should be carefully attended to, for many lives have been lost through the temerity of Europeans proceeding to pass through the surf in defiance of the admonitory signal. When the surf is impassable, the answering pendant of the Commercial Code will be displayed under the other flag. The following signals are also made from the same place:—Flag, white with blue cross..... Weather suspicious, prepare for sea. Flag, red, with swallow-tail followed by 7 guns with an interval of five minutes between each gun..... Cut or slip. After sunset, an approaching gale is indicated by three lights being hoisted—one at the flag-staff head, and one at each yard-arm; and 7 guns will be fired from the Fort with an interval of five minutes between each gun. Masters are required to acknowledge seeing these signals, when made, by hoisting a good light at the peak, or other conspicuous place most convenient. Madras Roadstead is open to all winds excepting those that blow from the west off the land, and there is generally a swell tumbling in from sea-ward, making ships labour or roll considerably at times. Many lost anchors are scattered about in the north part of the road. To the south, where large ships moor in 9 to 11 fathoms, it is more clear. The bottom in many places is stiff mud, from which it is sometimes difficult to extricate the anchors. To moor in 9 fathoms, with the flag-staff from north-west to west-north-west, is a good position for a large ship, where she will be about 1½ miles from the shore; but ships having a cargo to discharge often moor in 8 or 9 fathoms abreast the Master Attendant's flag-staff, with it bearing W., or W. by N. In the bad-weather season it is prudent to anchor well out, and keep the ship ready to proceed to sea, should circumstances render this advisable. The gales generally commence at north-west, blowing strong from the land, with which ships can run off shore before the wind veers to the north-east and east, when it would be impossible to get out to sea. From beginning of October to mid-December is considered the most dangerous season to remain in Madras Road, or at any other ports on this coast. Gales also happen in April and May; notwithstanding this, ships are found in Madras Road at all times, for these gales are not frequent; and if a ship be kept in good condition for proceeding to sea, embracing the opportunity to weigh, cut, or slip, and run out on the first approach of a gale, there is probably little danger to be apprehended. Many ships, by remaining at anchor, have at various times been driven on shore. The severe storms at Madras generally commence from the north or north-north-west, shift to the north-east and east, where it blows a hurricane, and then veer to south-east, raging with equal violence. The holding-ground in Madras Roads is good, but there is generally a heavy swell from sea-ward, especially if the wind remains long at east. The only dangerous time for large vessels is during a cyclone, which happens about once in nine years. When strong east-north-east winds blow for any length of time in the north-east monsoon, a heavy sea rises which few native vessels can ride out, and getting under weigh is difficult, as the wind is nearly dead on to the shore. Many vessels and lives have been lost in these short east gales, which seldom last more than twelve hours, and do not affect the barometer at all, although it gives timely notice of a cyclone. In fine weather, the surf breaks about 300 feet from shore, and in squally weather about 450 feet. When it blows hard from the east, it breaks nearly 1,000 feet from the beach; but on these occasions it is difficult to distinguish the break of the surf from that of the sea. In ordinary weather, the surf-wave is not above 8 feet high; in rough weather, about 6 feet; and during a gale 12 or 14 feet. When the land-wind blows dead off shore, the surf-wave is often very high, but then there is only one slow heavy roller, and boats can lie by for it better than when the surf is lower, but quick, following, and confused. There is not so much danger in crossing the Madras surf as commonly supposed. Return cargo-boats now and then get swamped through negligence, but accidents in passenger-boats are almost unknown. Coming on shore in a heavy surf is more dangerous than going off, as it is more difficult to keep the boat end on. The Masulah boat is the only kind of boat that is fitted for the surf, and is not injured by bumping on the sand when landing; they carry about 1½ tons of dead weight. In the beginning, and during the strength of the north-east monsoon, the current sets strong along the coast to the south; it is at its maximum strength (2½ to 3 knots) in mid-November; sometimes 2 knots an hour in December, but abates in January. During the south-west monsoon, particularly in the early part, after 1st of February, the current frequently runs equally strong to the north, which makes it necessary for ships to fall in with the land to windward of the port to which they are bound. The winds are then between south-east and south by west, the along-shore winds. This caution ought not to be neglected by ships that sail indifferently upon a wind. The 'Lushington,' in February 1874, made the land at Poolicat, and anchored in 7 fathoms, with the flag-staff north-west by west, the current running strong to the north; with sea-breezes scant at south-east, and land-breezes at south-west, she was two days getting to Madras. The 'Duncan,' 'Madras,' and 'Anna' also fell in with the land a little to the north, 5th February, and did not reach Madras till the 7th, at midnight. Ships approaching Madras after the 1st February ought, therefore, not to make the land to the north, but endeavour to steer direct for it, or rather to make it bearing to the N.W., particularly if the wind be southerly. In the opposite season, from September to February, ships should endeavour to make the land a little to the north, or with the light-house bearing S.W. Many ships which made the land a little to the south of Madras in the north-east monsoon, have been from one to two and three weeks gaining a few miles to the north, and with the utmost difficulty reached the port. The maximum velocity of the current appears to be 3 miles per hour. It is high water on full and change of the moon at 7 hours 30 minutes and the rise of tide at the highest springs is 3½ feet nearly. During a heavy gale from the east, the sea has risen 6 feet; and, in a hurricane, as much as 10 feet; then washing over the roadway or bulwark. Since 1841 there has been a good light-house, in lat. 13° 5′ N., long. 80° 17′ E., on the esplanade north of Fort St. George, exhibiting at 132 feet above the sea a light flashing every two minutes, to guide ships clear of the Poolicat Shoal and into the road, and seen in clear weather 6 to 8 leagues. From the south-east extremity of the Poolicat Shoal the light bears S.S.W. 16 miles; but no ship, when hauling in from the north for Madras Road, should bring the light to bear to the S. of S.S.W. ½ W. unless her position be well ascertained. A serious risk may be incurred by incautiously approaching the dangerous vicinity of the Poolicat Shoal, as hazy weather or other causes may obscure the light; true soundings and a vigilant look-out are imperative. The Observatory at Madras is in long. 80° 14′ 20″ E., or 2′ 40″ W. from the light-house. The semaphore attached to the flag-staff on top of the Master Attendant's office, by which vessels can regulate their chronometers, is dropped at 8 A.M. and 2 P.M. daily Madras mean time. It is extended at a right angle five minutes before dropping. When it does not drop correctly signal CVNJ of the Commercial Code will be hoisted immediately and kept flying for half an hour. Vessels may ascertain the error of their chronometers, by noting the time of the flash from the 8 o'clock evening gun, which, being also noted at the Observatory, is given in Madras mean time from the Master Attendant's office the following morning. Too much reliance, however, should not be placed on this method, as the flash cannot at all times be distinctly seen at the Observatory. The Screw-pile Pier, which starts in an east direction from the sea-bulwark by the Custom-house, is 40 feet broad and upwards of 1,000 feet long with a T-shaped head, which is 160 feet long in a north and south line. Railway lines are laid down along the main pier, and the rest of the breadth is

for foot-passengers. There are six fixed and eight movable cranes on it, and goods and heavy machinery are landed at certain fixed rates. All goods landed, which are subject to duty, are discharged into the Custom-house. All goods landed, which are free from duty, are discharged at the inner end of the Pier, from whence parties must make arrangements for their further removal. Water is supplied to shipping at 2 annas per ton. This is brought to the Pier-head by pipes from the seven wells on the north side of Black Town. An enclosed harbour has been constructed with an opening at the entrance in the centre of 550 feet. It was partially destroyed in the cyclone of 12th November 1881, and the damaged portions are to be reconstructed on an amended design. Steamers making the port of Madras are warned not to approach the entrance of the harbour, but to await the arrival of the pilot in not less than 9½ fathoms. Ashes, clinkers, and sweepings are not allowed to be thrown overboard from vessels in the enclosed harbour. During the south-west monsoon, Commanders of vessels, who do not intend entering the harbour, should anchor a little to the northward of a line due east from the northern groyne at the entrance of the harbour, and during the north-east monsoon, such vessels should anchor a little to the southward of a line due east from the southern buoy marking the entrance of the harbour, so as to leave the entrance clear for vessels wishing to come inside. Commanders of vessels not intending to enter the harbour will anchor in such a position that whichever way their vessels swing, they will be quite clear of the entrance of the harbour. Officers in charge of vessels moored within the harbour are warned to pay great attention to their sternfasts, taking care to slack them away in the event of a north-wester coming up off the land, so as to allow the vessel to ride with her head to the wind. In the event of a vessel parting the riding anchor, it is imperatively necessary that Commanders should be prepared with steam, or have a third anchor ready for letting go, while immediate action will be necessary to heave in chain on the second anchor. On a vessel parting her anchor by day and requiring assistance, she should immediately hoist the signal LGM ("I have parted") and fire a gun to attract attention. By night three rockets should be fired in quick succession. The Madras Railway has one terminus on the beach on the north side of Black Town, and 3 furlongs to the north of the Screw-pile Pier. Ennore, a village in lat. 13° 14′ N., bears from Madras N. by E. ½ E., distant 3 leagues. About 1¼ miles to the south of the village stands Ennore House, close to the sea. Nearly a league to the north of that house is situated the south extremity of Poolicat Shoals, bearing about E.S.E. from a thick tope of trees, which is the first to the north of Ennore House, and may be known by two trees at its south extremity, separated from the rest. The sea generally breaks about 1½ miles from the shore, on the south part of the shoal or reef opposite the tope of trees, there being less water on this part than anywhere else—1 and 2 fathoms. The most projecting and dangerous part of the reef is a place with 3 and 3½ fathoms, hard sand, distant 3 to 5 miles from the south part mentioned, where it breaks, and the same distance off the shore abreast, having 10 and 11 fathoms very near it on the outside. Between this 3-fathoms bank and the south part of the reef that breaks, there is an inner passage (which requires a pilot) leading to Poolicat Road, or Anchorage, which is in 7 or 8 fathoms, from 1 to 2 miles off shore, abreast of the light-house, which is by the old flag-staff. Large ships ought to pass outside, and if bound for Poolicat Road, should not come under 13 or 14 fathoms, until the flag-staff is brought to bear W. by N. They may then steer for it, and will not have less than 5½ or 6 fathoms, sandy bottom, in crossing the north tail of the reef. Between Ennore House and Poolicat the shore presents a regular convex front to the sea, and from Madras is low, abounding with trees to the south of Ennore. Inland there is a high chain of mountains, called the High Land of Poolicat, or Poolicat Hills, at the south part having a small piece of table-land, or hill, called Kettle Bottom, which bears west from Poolicat Flag-staff, and west-north-west when on with Ennore House. In lat. 13° 22′ N., long. 79° 45′ E., a little to the south of Kettle Bottom, there is a hill less elevated, called Nagary Nose, remarkable by a small crooked knob on it, bent over to the south, and resembling a horn. The Light-house, in lat. 13° 25′ 15″, long. 80° 19′ 6″ E., exhibits a fixed 4th order Dioptric white light on a masonry column with black bands in the position of the old flag-staff, 68 feet above the sea, visible 14 miles. Mariners are reminded that when this light bears W. ½ N., a vessel will be to the north of the shoals, and the Madras Light should not be brought to the south of S.S.W. ½ W. From Madras Road, to pass clear of the reef stretching along the coast from Ennore to Poolicat, the course is north-north-east, and the distance about 6 leagues to its outer edge, about 3½ miles off shore to the south-east of Poolicat. At this part it is steep, from 10 and 11 fathoms to 4 and 4½ fathoms, and should not be approached under 12 or 13 fathoms in a large ship; neither ought the south extremity of the reef to be borrowed on under these depths. In steering along the coast from Madras, a ship ought not to shoal under 12 or 13 fathoms, particularly in the night. She ought to keep out in 16 or 17 fathoms when abreast of Poolicat Shoals, which are most projecting with the Red Light of Poolicat bearing about N.W. by W.; but in hazy, thick weather this might not be seen. If the Madras Light is discernible, it must bear to the west of S.S.W. ½ W. in passing those shoals. The depths are from 45 to 50 fathoms on the outer edge of the bank of soundings, about 3 or 3½ leagues off shore, on this part of the coast, which is steep, and from 18 to 20 fathoms about 4 and 4½ miles off shore. As the depths decrease suddenly from 18 to 15 and 11 fathoms, then to 4½ or 4 fathoms on the edge of Poolicat Reef, the hand lead is of little use. Armegam, in lat. 14° 1′ N., long. 80° 10′ E., bears nearly N.N.W. from Poolicat, distant 12 leagues. About half-way between them Point Poody projects considerably into the sea, with a shoal off it about 2 miles to the south-east. From Point Poody the shore-line recedes to the north-north-west.

ARMEGAM SHOAL nearly joins the shoal that fronts Point Poody, its south-east extremity bearing N.N.E. from that point, distant 2 miles. From thence it extends about north by west, parallel to the coast 3½ leagues, till opposite the entrance of Armegam River, its outer edge being 2 leagues distant from the shore. The depths on it are generally from 3½ to 1¾ fathoms, but on its south part, to the north of Point Poody, there are only 2 fathoms in some places, where it occasionally breaks. Very near its outer edge there are found from 7 or 8 to 9 and 10 fathoms, increasing quickly to 28 or 30 fathoms at 3 or 4 miles distance from it, in steering to the north-east. Between the inner edge of the shoal and the coast there is a space, from 3 to 4 miles wide, now called Blackwood Harbour, with soundings from 4½ fathoms near the shore, to 6 or 7 fathoms near the shoal, where ships might anchor with safety in the fair-weather monsoon, near the entrance of Armegam River, by passing round the north end of the shoal, with the hill bearing W. ½ S. There is also a narrow channel, leading into Blackwood Harbour, round the south end of the Armegam Shoal, between it and the shoal that fronts Point Poody. The hill, and also the coast, is frequently so obscured by haze, that the land seems always more distant than it really is; and many ships having got on the shoal without seeing land, induced them to think that this shoal was situated far out from the coast, and it got the name of the London Bank. A ship bound from Poolicat to the north, and wishing to keep near the shore, may continue to steer along in 12 to 14 fathoms, and when abreast of Point Poody she ought not to come under 14 fathoms, to give a berth to Armegam Shoal. Armegam Hill, in lat. 14° 3′ N., and 2½ leagues west from the entrance of the river, is of regular form, detached from any other high land. If bound for Armegam Road, a ship ought to keep in 11 or 12 fathoms until Armegam Light bears S.W. by S. or the hill bears W. ½ S., or on with the north grove at the entrance of the river, which will be seen from the poop. The Kettle Bottom, if visible, will then bear S.W. She may then steer direct for the hill, and will pass to the north of the shoal in not less than 6 fathoms, until she anchor opposite the river in 5 or 6 fathoms, within 2 miles of the shore. A 4th order Dioptric flashing light is now exhibited at the village of Monapollem, in lat. 13° 53′ 8″ N., long. 80° 11′ 47″ E., 107 feet above the level of the sea, to facilitate the navigation in the vicinity of the Armegam Shoals. In clear weather it is visible about 14 miles. The light bears due west, and 6 miles from the shoalest part, which has 9 feet. Kistnapatam bears from Armegam nearly N. by W. about 5 leagues. The coast between them is low, and may be approached to 6 fathoms. Ships anchor abreast of Kistnapatam River in 5 or 6 fathoms. Between it and Armegam, there is a place called Pamanjy, near the mouth of the Swarnamookhy River. From Kistnapatam a sand stretches along the coast to the north, around Point Pennair, about 4 leagues distance, called Shallinger Sand, which projects about 3 or 4 miles from the shore, having regular soundings of 4 and 5 fathoms on its outer edge. Meipaud, lately become a place of much trade, is in lat. 14° 31′ N. Point Pennair, in lat. 14° 36′ N., formed on a part of the coast, having a convexity to sea-ward, is not remarkable. The Pennair River mouth is to the north of the point; and further to north-north-west are the salt

golahs of Varny and Iskapally. Still further to north are those of Zoovauladinney, Ramapatam, and Paucala. Paucala (with which is associated the small village of Eetamookkala), in lat. 15° 20′ N., bears from Point Pennair about N. by W. distant 15 leagues; the coast between them is generally low, fronting the sea, and may be approached to 7 fathoms. Inland from this part of the coast there are hills, which may be seen at a considerable distance. The Goondlacumma River mouth, in lat. 15° 27′ N. (near which are the salt golahs of Cottapatam), is considered to bound the coast of Coromandel to the north, beyond which the coast of Golcondah begins. The appellation of Coromandel is however often applied to the whole of the coast, as that of Malabar is to the whole extent of coast on the west side of the peninsula. Cottapatam, in lat. 15° 26′ N., is the north-most port of Nellore district. The shallowest parts of the Motoopully Shoals bear E. by S. distant 9 miles off shore from this place.

Motoopully Shoal (least water 2½ fathoms), is in lat. 15° 23½′ N., and 5 miles distant from the shore, Ongole, or Pillore Hill bearing from it W., distant 17 miles. The shoal-patch of 2½ fathoms bears E. by S. and is 9 miles off shore from Cottapatam. It lies south-west from False Point Divy about 6 leagues. Motoopully Bank extends to several miles distance all around the above-mentioned shoal, having in some places hard bottom, with overfalls, from 5 and 5½ fathoms to 8 and 9 fathoms water. Ships passing here in the night ought not to shoal under 24 or 20 fathoms, nor under 14 or 15 fathoms in the day-time, on the outer edge of the bank, which shelves off from 18 or 20 fathoms to no ground 60 fathoms, at 6 miles distance. The shoal-patch has from 5½ to 8 fathoms near it all around, hard irregular soundings, which do not point out its proximity. Several Bengal ships have accidentally got on it in 2½ or 3 fathoms, and were in imminent danger.

Coast of Golcondah.—Motoopully, in lat. 15° 44′ N., long. 80° 17′ E., and about 9 leagues to the north- north-east of Paucala, is a small village ½ mile inland, not discernible from a ship; but with the aid of a telescope, a small pagoda is perceptible. There are about twenty detached palmyra trees to the north of the landing place, and about a mile to the south a thick grove of trees with a clump on its south part higher than the rest. With the north extremity of a piece of high land in one with a thick grove of trees, you are abreast the proper anchorage, in lat. 15° 42′ N. Coming from the south towards Motoopully, a vessel may keep near the land in soundings between 6 and 8 fathoms, to pass inside of the 2½-fathom shoal, situated on the extensive bank to the south-east and south of Motoopully. From Motoopully to False Point Divy, the coast runs north-east by east, then east about 6 leagues to Nizampatam; thence east by south and south-east to the mouths of the Kistna River, and forms a bay to the west of the point. In this space the coast is low and woody, having the villages of Pettapoly, Eepoorpollem and Nizampatam, with two small rivers near them. Pettapoly, in lat. 15° 50′ N., may be known by a flat grove of palmyra trees near it. Nizampatam, in lat. 15° 54′ N., long. 80° 38′ E., is a large town, about 2 miles inland, up a small river, with an extensive coasting trade. Divy False Point, in lat. 15° 45′ N., long. 80° 54′ E., projects from the main to south, forming the east side of Pettapoly Bay, having branches of the Kistna falling into the sea in its vicinity. A bank of very shoal water projects from this point 7 miles, both to the west and south, requiring caution in passing, as the depths near its edge decrease rather suddenly in approaching from sea-ward. There are 35 and 40 fathoms, 5 miles outside the edge of the bank that extends from False Point along the coast, and around Point Divy; but the depths, from 10 or 12 fathoms on the edge of the bank, decrease pretty regularly to 5 and 4½ fathoms farther inside. Ships coming from Motoopully ought to steer along the coast in from 8 to 9 fathoms until they approach False Point Divy; then haul out to the south-east, round the shoal flat that fronts it, which should not be borrowed on under 7 fathoms, even during fine weather. The coast from False Point to Point Divy being very low, is scarcely seen in fine weather from a vessel's deck, and not at all in hazy weather from the outer edge of the shoal flat, upon which the corvette 'Favourite' and other ships have grounded. If the low land of False Point Divy be in sight from a vessel's deck, she is much nearer in than prudence allows. There is no correct survey of the mouths of the Kistna. Its banks are shifting and advancing sea-ward. Divy Point, in lat. 15° 58′ N., long. 81° 11′ E., bears from the False Point N.E. by E., distant 7 leagues. The coast between them is low, with a shoal flat extending from it to the distance of 3 miles. Ships in passing may occasionally borrow on the flat to 5½ or 6 fathoms with a commanding breeze, as the water shoals gradually; but suddenly in coming from sea-ward on the edge of the shoal. The point is low, and, before the erection of the light-house, was without any distinguishing mark, except some trees covering it; for the low level coast which stretches from it to the north-north-west, forming the west side of the semi-circular bay of Masulipatam, is destitute of them. Around the point, and between it and the former place, several branches of the river Kistna fall into the sea. The great quantity of earth carried down during the rains by these streams has probably formed the shoal flats along this part of the coast. The rise and fall of tide is seldom more than 4 or 5 feet in the spring tides at the mouths of the rivers. It sometimes happens, when a severe gale of wind blows from the sea, that the low land is inundated, causing great destruction of property and lives. In approaching Point Divy from the east, the depths decrease quickly after a ship gets on the edge of soundings, about 5 leagues off shore. The lead ought never to be neglected, when standing towards it, or any part of this low coast. A fixed 4th order Dioptric white light on a white column has been exhibited 2 miles north-west of the point since 1851. It is 48½ feet above the level of the sea, and in clear weather may be seen 14 miles. Divy light is in lat. 15° 58′ 55″ N., long. 81° 9′ 25″ E. It is said to be visible only between the bearings of north, round by the west, till it bears south-west. Therefore a vessel (especially a fast steamer) must be cautious, when approaching from the south; and if she gets a cast of the lead, without seeing the light, should at once haul off shore.

Masulipatam, in lat. 16° 9′ N., long. 81° 10′ E., bears nearly N. ½ W. from Point Divy, distant about 12 miles. The coast between them is low and sandy, lined with a shoal flat, having 3½ and 4 fathoms on the edge of it, about 5 miles off shore. With a south or west wind, a ship bound for the road may, after bringing Point Divy Lighthouse to bear about west in 7 or 8 fathoms, steer along the edge of the flat, shoaling to 5 or 4½ fathoms gradually, as she approaches Masulipatam. The latter place will easily be known after rounding the point, by the appearance of the flag-staff and building. If the ship get into 4 fathoms, or have a hard cast, she ought to haul out instantly to the east. The shore is flat all round the bay; the depth in approaching it does not decrease more than ½ fathom for the distance of nearly a mile. Ships, in the fair season, generally anchor at Masulipatam abreast the town, in from 4 to 5 fathoms, mud, with the flag-staff from west to west by north, off shore 4 or 5 miles. This town is situated on a small branch of the river Kistna, and is a place of considerable trade; the export chiefly cottons, printed in a variety of patterns. At the flag-staff, a fixed 6th order Dioptric white light is exhibited, at an elevation of 69 feet above sea-level. It is merely a port-light, and visible only 6 miles. Ships bound to Masulipatam, from February to October, should make Point Divy, taking care not to fall to the north. In coming from Madras, they should keep in soundings; but to avoid the Armegam Shoal and the Motoopully Shoal, they ought not to borrow under 20 fathoms in passing, particularly at night. When False Point Divy or the coast between it and the true point is approached, they may with the wind, at south-west or west, haul into 8 or 9 fathoms, decreasing the depth of water gradually when round the point, until they reach the road of Masulipatam. This proceeding is proper during the south-west monsoon; but in February, March and April, if the winds incline from south-east or east, which sometimes happens, it will be prudent to keep at a reasonable distance from the land, and steer directly from sea-ward into the bay at Masulipatam. In October, November, and part of December, the weather is very unsettled, the winds generally from north-east and east, and current running mostly strong to the south. Ships bound for any of the ports on this coast during these months should fall in with the land to the north of the place for which they are bound, for they will seldom be able to gain any northing when near the land in this season. As most of the roads on the coast are exposed to gales of wind from the sea, which are liable to happen from 1st October to 1st of January, few ships remain in them during this period, except on particular occasions. From 10th or 15th of October to 10th or 15th of December is considered the most precarious time. Gales of wind have at times been known to happen during the south-west monsoon, particularly at its commencement in April or May. A storm has also been experienced in August, although bad weather is seldom apprehended when the south-west monsoon prevails. In May, the coast of Coromandel was visited by a violent tempest, the wind chiefly

blowing from north to north-east, with a deluge of rain, which destroyed much property along the coast, and about Coringa. The sea inundated the low country; several vessels were carried into the fields by the inundation, and afterwards grounded on more elevated parts of the land. One new ship, building on the stocks at Coringa, was swept away into the river and destroyed. In Cuttack, and the low country around Point Palmiras, a devastation of property and loss of life took place in consequence of the inundation. This was followed by a famine, in which multitudes of the natives who escaped from the inundation perished. Narsapore Point, in lat. 16° 18′ N., long. 81° 42′ E., bears from Point Divy nearly north-east by east 12 leagues; and from Masulipatam about east by north 11 leagues. It forms the east extremity of the great bay of Masulipatam. Close to it, on the west side, the river of Narsapore, the west branch of the Godavery, falls into the sea. The other branches of that river debouche near Point Godavery and at Coringa. On the bar of Narsapore River there are 8 or 9 feet water, and 3 to 5 fathoms inside, in the passage to the town. A shoal bank projects about 3 or 4 miles to the south and west of the river and point, on which the sands are liable to shift and alter the channel. Narsapore town is about 6 miles from the river's mouth. Adjoining it is the ancient town of Madapollam, once famous for its cloths, but now half cut away by the encroachment of the river Kistna. Narsapore was formerly visited by English ships of considerable size, but now is frequented chiefly by native craft. Lightly-laden vessels enter the river by a channel known to the pilots. Cargoes are mostly discharged at Antarvedhy, near the river mouth. The anchorage in the road is in 4½ to 5½ fathoms to the west of the point, near the edge of the flat that extends from the river off shore 4 or 5 miles. In a direct course from Point Divy, across the entrance of the bay to Narsapore, the depths are from 14 to 24 fathoms, shoaling fast towards either point. From Narsapore Point, the coast stretches nearly north-east by east about 10 leagues, then changes to north-north-east and to north for 5 to 6 leagues farther to Point Godavery. The coast between these points is low, and may be approached occasionally to 7 or 8 fathoms. A large ship ought to keep farther out, particularly within 3 leagues of Point Godavery. When here at night she ought not to borrow under 14 or 15 fathoms, which is only 4 miles off shore, and near the extensive shoal that surrounds the Point. Between these points some streams fall into the sea.

Coringa Bay. Godavery Point, in lat. 16° 49′ N., long. 82° 20′ E., the south point of this bay, is a low, narrow sand-bank, extending nearly north and south several miles. The north of it is considered as the Point, though some navigators set the low islands on the west side of the sand-bank for Godavery Point, as these are covered with trees and bushes, but partly inundated at high water. The sands surrounding the Point, on which the sea breaks, extend from it about 3 miles to the north-east and 5 or 6 miles to north, having channels for boats between some of them. Hope Island is a dry sand-bank to the west by north of the Point, its north part being in lat. 16° 52′ N., but the light-house (on its south-west end) marks it. To the north of Hope Island the bank consists of soft mud, where it fronts the sea, and the edge of this mud-bank, having 2 and 3 fathoms on it, extends from the north extremity of the reef, about west-north-west and west by north towards Cocanada. A little to the west of the edge of this bank the bottom becomes hard sand and soft mud alternately; for the whole space between Coringa River and Godavery Point Reefs consists of channels from the river between banks that are dry, or barely covered at low-water. Much caution is necessary in approaching these reefs and shoals, as they are said to extend much farther than generally supposed, and to be much affected by storms and inundations, which sometimes occur on this coast, and by which great changes are produced. The 'James Sibbald,' a fine Bombay-built ship, was wrecked on these reefs on the voyage from Bengal to England. The principal branch of Godavery River is to the north-west of Godavery Point. Hope Island is covered with jungle, but intersected by several channels; and is, therefore, a group of islets. On the south-west end stands the Coringa Light-house. It bears from Godavery Point about W. ¾ N. In thick weather this light may not be visible beyond 10 or 12 miles. As the outer edge of the reef is at least 4 miles from the light-house, a vessel may, during such weather, be within 4 miles of the reef before the light or light-house is discovered. Soundings always require the most prompt and careful attention. Godavery Point has extended to the north since the first publication of Horsburgh's Directions, and the reef has also extended its limits both to the north and east. These changes have shifted the anchorage off Cocanada, or in Coringa Bay, farther to the north, but are not in any way detrimental to the safety of that anchorage. The Master Attendant sees to the shifting of the buoys and to the berthing of ships. The buoys which formerly marked Point Godavery have been removed and a large red buoy has now been placed to the north of Point Godavery in 6½ fathoms low-water. On account of the rapid increase of the shoals to the north of Hope Island Light-house, it is most probable that a light-vessel will be placed there. The Bay of Coringa is well sheltered, and is only open from north-east to south-east. The anchorage is on good holding ground, deepening to the north-east. A ship or vessel driving on the mud-bank would not sustain any material injury. Nine feet is about the average height of water near the bar at full and change of moon, when it is high water at 9 hours 15 minutes. The rise and fall of tide is 5 feet during the springs, 3 feet neaps. The navigation of Coringa Bay was improved by the erection of a light-house on south point of Hope Island, in lat. 16° 49′ 5″ N., long. 82° 18′ 58″; it has a fixed light, 83 feet above high water, and may in clear weather be seen about 4½ leagues. Here they may be supplied with wood, water, and provisions; and in the fair season, any repairs may be effected. Coringa Town, in lat. 16° 49′ N., is situated on the branch of Godavery River, generally called Coringa River, and bearing W. from Godavery Point, distant 6 miles. This is the best place on the coast for repairing or building small vessels, there being a considerable number of ship-wrights and caulkers constantly employed building or repairing the numerous coasting traders which belong to or frequent the river or road. On the bar off the entrance of Coringa River there are from 3 to 5 feet over a sandy bottom in common spring tides; it is high water at 9 hours on full and change of moon, rise of tide from 4 to 6 feet on the springs, and 2½ or 3 feet on neap tides. When storms happen, or strong gales blow from sea, the country, being low, is liable to inundations, the sea having been known to rise greatly above its ordinary level at such times. The water here, as well as in the road, is smooth, and outside the bar; the bottom being soft mud, it is a common sight to see the country vessels aground in it. Coringa town is situated on the south shore, about 1 mile from the point that forms the entrance on the same side. The depths in the river, within the bar, are in general 2½ fathoms. Inzaram town, from which a considerable quantity of piece-goods is exported, is about 6 leagues up the river. Contiguous to it, and on the main branch of the Godavery, stands the French Settlement of Yanam. Cocanada, where are the pagodas of Juggannadapooram, in lat. 16° 56′ N., long. 82° 14′ E., and about 7 miles nearly north from Coringa, is a village with some white buildings and two small pagodas near it. The bar of the river, which is about 1 mile to the east of the village, has been improved by dredging and the throwing out of the two stone groynes. Formerly it was scarcely navigable by boats at low-water. Inside the depths are from 8 to 12 feet. This river being small, it is seldom frequented, except by cargo-boats or dhonies. The anchorage is safe with a soft bottom but good holding ground. Large ships lie in it at all seasons, and although the anchorage is about 3 to 4 miles from the mouth of Cocanada river, yet owing to the waters of the Bay being generally smooth and the navigation easy, communication with the shipping and the shore is never impeded. Ships can obtain refreshments and water at this place. The Light-house at Vakkalapoody is situated in lat. 17° 0′ 40″ N., long. 82° 16′ 30″ E., 4·6 nautic miles N. by E. from the old light-house at Cocanada. It is a white tower 76 feet high from base to vane and is intended to lead vessels clear of the shoals to the north of the Point Godavery, when making for the Cocanada anchorage from the southward and eastward. The light is a white revolving one of the 4th order Dioptric, flashing at intervals of 20 seconds, and elevated 80 feet above high water, and should be visible from a distance of 14 miles in every direction seaward. To the south-east and south of Godavery Point the bank of soundings is steep, from 45 or 50 fathoms about 4 leagues off, to 16 or 18 fathoms in a run of 3 or 4 miles towards the shore. Care is requisite at night, when approaching the point from seaward, as depths decrease suddenly. A large ship ought not to come under 16 or 17 fathoms, and should be prepared to tack immediately after getting soundings. To the north of the point the soundings are more regular, and do not decrease so suddenly as to the south-east and south. Although the reefs surrounding Godavery Point are dangerous to approach at night or in thick weather, they may occasionally, with a gentle commanding breeze, be borrowed on in the day to 10 fathoms; but as the dry

banks to the north of the light-house are ever varying, by freshes out of the rivers, great caution is requisite in rounding these shoals. With a south wind, bound for the anchorage in Coringa Bay, a ship, after rounding the reef off Godavery Point, may steer to the north along the edge of the mud-bank in 6 or 7 fathoms until she reach the road. In working, with the wind from west, she may borrow on the edge of it to these depths at tacking. The soundings are not always regular. Bound to Coringa from the north, during the south-west monsoon, vessels should haul in towards the coast to the south of the Dolphin's Nose, and beat to windward close along shore. From the Dolphin's Nose, by Vizagapatam, until near Pentacote the coast is high, bold, and rocky, and free from all danger, but should not be approached under 12 or 14 fathoms, as those soundings are not above 1½ or 2 miles off shore. There is a high rock (Pigeon Island) close to the beach, near the village of Poodimadaca, situated 5 or 6 leagues south-west of the Dolphin's Nose. Wattauda, marked by a bungalow on the summit of a hill, bears about S.W. ½ W., 10 leagues from that promontory. Pentacote, known by a detached conical or sugar-loaf hill, bears S.W. about 7 or 8 leagues from Wattauda. A few miles to the south of that position the bold and rocky coast gradually terminates, and may be approached to within 8 or 9 fathoms. When off the village of Ooppauda, 20 leagues south-west of the Dolphin's Nose, and 4 leagues north-east of Cocanada, vessels may stand in shore to 4½ and 5 fathoms, where a soft muddy bottom commences. When thus far to windward, care should be taken, by making short tacks, to hug the coast, as the freshes from the several mouths of the Godavery in June, July, and August set with such rapidity that ships and vessels may, without precaution, experience much difficulty and delay in beating up for the anchorage. Having sighted Hope Island Light-house, by day, or the light by night, it may be brought to bear from S. ½ E. to S. by E., and with the Cocanada Light-house bearing about S.W. to S.W. by S., ships and vessels may anchor off Cocanada in 5 fathoms, soft mud, and off shore 1½ or 2 miles. The lead and light will be the only guides, and night soundings must be carefully attended to. Vessels from the north, bound to Coringa during the north-east monsoon, should guard against a south current, and make the coast between the Dolphin's Nose and Wattauda, when they may direct their course for the bay. In this monsoon large ships should anchor in 6 fathoms, with the Cocanada Light-house bearing S.W., where they will find good holding ground. Vessels from the south bound to Coringa in the south-west monsoon should, in the day-time, make the land about Narsapore Point, and not come under 8 or 9 fathoms. This point is low and woody, and the coast presents the same appearance until past the large fishing village of Bendamoorlunka, which is 13 miles N.E. by E. from the point. Thence to the reef off Point Godavery the coast is intersected with low shrubs and sand-hills. About half-way between the village and the reef off Godavery Point there is a remarkable tope of palmyra trees. When this tope bears about S.W. the light-house on Hope Island may be seen if the weather is clear. As several ships have been lost in the vicinity of this part of the coast, and as erroneous impressions prevail respecting the soundings and extent of the bank, Captain Biden, the Master Attendant, in the steamer 'Hugh Lindsay' hauled within 3 miles of the coast in 7 fathoms, abreast the site where the ship 'Active' was wrecked, and from that position the steamer edged away south-east for 4 or 5 miles and carried regular soundings from 7 to 19 fathoms. The same experiment was made between that position and Narsapore Point, and with a corresponding result. Having passed the tope and sighted the Hope Island Light-house, ships and vessels should keep off in 12 or 14 fathoms until the light-house bears about W. by N., when they may edge away or haul up to the north, and (attending well to the lead) bring the light to bear S.W., in not less than 9 fathoms. On this bearing of the light there is now a bell-buoy placed in 5 or 6 fathoms water, to mark the outer limit of shoal water. About 2½ miles to N.N.W. of this, there is another, the Middle buoy. The Inner buoy is about 2 miles to north-west of that, or about 3 miles to east-north-east of Cocanada Light-house. With a working breeze these Coringa banks may be approached to 8 or 9 fathoms. They are steep-to, and 6 or 7 fathoms are within the ridge of breakers, which are more or less visible according to the force and direction of the wind. Still holding on a northerly course, and having brought the light-house to bear S.W., vessels may haul up for the bay to N.N.W. and gradually to N.W. after the Cocanada Light is brought to the south of a west bearing. When it bears S.W. with soundings of 7 fathoms, soft mud, they should tack, and then prepare to anchor as previously directed. During the night, when neither Narsapore Point nor any other shore can be seen, the coast should not be approached under 12 or 14 fathoms. The greatest caution is at all times necessary when hauling in to make the Coringa Light. True soundings, a good look-out, and full preparation to tack or wear, or haul off shore at a moment's warning, must be attended to. Thick or hazy weather may obscure the light, and it may be prudent to stand off to the south until daylight. Ships and vessels from the south, bound to Coringa Bay in the north-east monsoon, must endeavour to work up well to the north of their port. If they are driven to lee-ward, they must avoid the danger of being embayed, and should not bring Narsapore Point to bear to the east of north, but stand to sea until they have gained sufficiently to windward of Point Godavery, when they must attend to the sailing directions, and anchor in a windward direction, as already noticed. The Coast above Cocanada goes north-east by north and north-east to Ooppauda, in lat. 17° 5′ N.; then north-east to Pentacottah; thence north-east by east to Wattauda. From Coringa to Pentacote it is all low, but to the north of that place the coast becomes high, bold and rocky. Samulcottah is a military station, about 3 leagues inland to the north-west of Cocanada. At the back of that a range of hills commences, running nearly parallel to the coast line, but 12 miles from it, and approaching nearer to the sea towards Vizagapatam. Pentacote River, in lat. 17° 18′ N., long. 82° 38′ E., is at the southern extreme of the Vizagapatam district. Its entrance may be known by two sand-hills and a cocoanut grove near the beach. Toony conical hill is about 7 miles inland of Pentacote. Wattauda, a small town in lat. 17° 26′ N., long. 82° 52′ E. bears from Godavery Point N.E. by N., and from Cocanada nearly N.E., distant 15½ leagues. The coast between them may be approached with safety to 12 or 14 fathoms about 2 or 3 miles off shore, being bold and clear of dangers. The edge of soundings is seldom distant above 4 leagues from the shore. The low coast of Golcondah terminates about 6 leagues to the north of Juggannadapooram, where a ridge of hills or high land begins, stretching from thence along near the sea to Ganjam. Three leagues about east-north-east from Wattauda and about ¾ mile off shore in lat. 17° 30′ N., long. 83° 0′ E. is the Pillar Rock. Pigeon Island, in lat. 17° 38′ N., long. 83° 13′ E., is about 15 miles from Pillar Rock. The village of Poodimadaca, lies between them.

Coast of Orissa.—The coast of Orissa is said to commence to the south of Wattauda, extending from thence to the entrance of the River Hooghly. The southern part of this coast was generally called the Northern Circars, and the name Orissa used for that part farther to the north.

Vizagapatam, in lat. 17° 42′ 45″ N., long. 83° 17′ 15″ E., is distant 10 leagues N.E. by E. from Wattauda. The coast between them is a little convex, with middling high land near the sea, bold and safe to approach to 14 or 15 fathoms, within 2 or 3 miles of the shore. Vizagapatam may be known by the bluff headland, called the Dolphin's Nose, which forms the south-west point of the road, but it is obscured under the high land, when viewed from the offing. About 5 miles to the south-west is Pigeon Island, almost close to the shore, appearing like a small hummock, and not discernible until near it. The coast opposite this island is sandy and barren. When Pigeon Island bears about N., and 5 or 6 miles off, the Dolphin's Nose and other hills around Vizagapatam may be plainly seen. One of these to the north of the road is called the Sugar-Loaf. The highest is several leagues inland from the town. Waltair, known by its bungalows, on a cliff or rising ground, where most of the Europeans reside, is 3 miles to north of Vizagapatam, and has been often mistaken for that place by strangers; vessels have sometimes anchored abreast it till informed of the mistake. The best anchorage in the roads is with the following bearings:—Fort flagstaff from N.W. by N. to N.W. by W. with the river's mouth open in 6½ to 8 fathoms of water. On the bar at the entrance of the river there is from 8 to 10 feet water, and sometimes more in the north-east monsoon; but the sands are liable to shift, with a decrease of depth in the opposite monsoon. As the water shoals fast in standing into the road, sail should be reduced in time, before a ship is too near the shore. Abreast the Dolphin's Nose, at 2 or 2½ miles distance, the depths are 20 and 21 fathoms, with it bearing about north-west. The shore continues equally steep from thence towards Pigeon Island. The bank of soundings hereabout extends 3½ or 4 leagues from the land.

Bimlipatam, in lat. 17° 53′ N., long. 83° 27′ E., bears N.E. about 5 leagues from Vizagapatam. The coast between them is bold, having 15 and 16 fathoms water, within 2 or 3 miles of the shore. A hill projects in a

headland on the southern side of the river, and all the land near this place is high. Ships may anchor in from 6 to 8 or 9 fathoms, abreast the river and village, in the south-west monsoon; and a little farther to the north in the other monsoon. From Bimlipatam the coast trends north-east 8 or 9 miles (with some red cliffs half-way) to Conauda River. About 1½ miles to south of this river is Conauda Point. Santapilly Village is 3 or 4 miles to east-north-east of Conauda. Nearly opposite this point lies a dangerous ledge of rocks under water, not easily discerned, distant 6 miles from the shore, called Conauda, or Santapilly Rocks. Close to them on the outside the depths are 16 and 17 fathoms. A ship ought not to come under 17 or 18 fathoms in passing on that side.

SANTAPILLY ROCKS, about 16 miles to north-east by east of Bimlipatam, are in lat. 18° N., long. 83° 43′ E., and distant from the coast 6 miles. They are about 10 feet under water, steep on all sides, and their extent is not beyond 200 yards. When there is little wind and a smooth sea, the shoal presents no indication of broken or discoloured water. Lieutenant Fell, when in search of it during very fine weather, anchored the surveying brig 'Kristna' within 100 yards of it without observing the slightest appearance of the shoal. He then proceeded in the vessel's boats over the rocks, and found 10 feet on the shoalest part; on the eastern side 7 and 10 fathoms, and at its western limit 10½ fathoms, rocky bottom. Captain Biden, the late Master Attendant, surveyed the rocks in the steam-vessel 'Hugh Lindsay,' during fine weather. With a moderate breeze from south-west, and a ground-swell, the breakers were clearly discerned from the mast-head at 6 or 7 miles, bearing due south and Santapilly Peak bearing W. by N., in 7 fathoms water, off shore about 2 miles. The breakers were soon after seen from the deck. The shoal is said to lie north-north-west and south-south-east, in circumference about ¼ mile, with 10 fathoms all round very close to the rocks. The inner channel is safe for ships and vessels of every class. It has 5 fathoms within 1 mile of the coast, and 9 fathoms within ½ mile of the rocks; thus affording a clear channel of nearly 4 miles in breadth. When the Peak of Santapilly is visible, it affords an infallible guide to the position of these rocks, for it is a very remarkable land-mark; and, being at least 2,000 feet above the sea, presents a striking contrast to all the hills in its vicinity. It bears N.W. ½ W. from the rocks. The base of the mountain is not more than 7 or 8 miles from the coast. The Great and Little hills of Conauda, close to the beach, may be seen by day, when Santapilly Peak may be obscured. The light-house is on the northernmost or Little hill, which is about ½ mile from the beach. In thick weather, when no well-defined land-mark is discernible, it becomes absolutely necessary to approach the coast between Ganjam and Vizagapatam with great care and caution, as change of current may, without strict attention to soundings, place a vessel in imminent peril close to, or upon the Santapilly Rocks. These rocks should not be approached from the east under 17 fathoms. The Santapilly Rocks, being 6 miles off shore, the careful navigator must see the importance of keeping the lead going, rather than trusting to sight the light, which in hazy weather might be obscured. A light-house on the roof of a house, showing a fixed white 4th order Dioptric light, 169 feet above the sea, is placed on Conauda Hill, ¾ mile inland, in lat. 18° 4′ 56″ N., long. 83° 37′ 35″ E., and in clear weather may be seen 14 miles. It bears from the rocks N.W. by W. ½ W.

THE COAST OF GANJAM DISTRICT commences at the Chicacole River, and extends as far as the Chilka Lake. Chicacole is the chief town of the district, having superseded Ganjam town in 1815. Chicacole River bears from Conauda Light N.E. by E., distant 6 leagues. The coast between them is high, and may be approached to 10 or 11 fathoms, about 2 or 3 miles off shore. The town of Chicacole, formerly noted for its muslins, is 4 miles from the sea on the north bank of the river. Its port, formerly known as Maphooz Bunder, is now only a petty village, as the river entrance is choked up. Calingapatam River, 4½ leagues to the E.N.E. of Chicacole, is on the north side of Sandy Point, in lat. 18° 19′ N., long. 84° 7½′ E. It may be known by Gaura Hill, about 4 miles inland, having a white pagoda on its side. As it is sometimes obscured in hazy weather, a beacon has been erected on the point, which is long, low, and sandy, and has a reef of rocks extending from it about ½ mile to sea-ward. In passing this point, vessels ought not to approach nearer than 8 fathoms. The beacon is an obelisk of cut stone, with a cap standing on a pediment, 64 feet in height on which a small light is exhibited to warn vessels off a small reef which projects from the point, and which should not be passed in less than 8 fathoms, when making the port at night. The town is on the south bank of the river, between it and the beacon. The exports are chiefly rice, wheat, ginjely-seed, gram, hides, timber and bees' wax. The best anchorage is in 6½ to 7½ fathoms, with Sandy Point S.W. by S., 2 to 3 miles off; and the highest upper-roomed house near the shore W.N.W to N.W. by W., about 1½ to 2 miles off shore. Nowpada, in lat. 18° 34′ N., long. 84° 19′ E., lies 20 miles to the north-east of Calingapatam. A black and white column, about 50 feet high, on the beach, distinguishes this place from others to the north. Poondy, in lat. 18° 40′ N., at the mouth of a small river, has a white obelisk near the travellers' bungalow, and a flag-staff, all three conspicuous objects. The river Poondy has several rocks projecting from it to sea-ward. Over this place, at some distance in the country, the High Land of Poondy is high and uneven; along the coast it becomes of middling height, but equally uneven. Barwah River is to the north-east of Poondy, having several hills contiguous, which are not very remarkable. Barwah, in lat. 18° 52′ N., long. 84° 36′ E., about 17 miles to north-east of Poondy, may be distinguished by two black and white columns, about 50 feet high. The anchorage is abreast of them. To the south-west of Barwah there are cocoanut trees, but only sandy shore to the north-east. Sonapore, in lat. 19° 6′ N., and about 20 miles from Barwah, has a white obelisk and a white column, each about 50 feet high; and also a flag-staff and custom-house, abreast of which vessels may anchor.

GOPALPORE, in lat. 19° 15′ N., long. 84° 54′ E., is 4 leagues to north-east of Sonapore. Carapar, an oblong hill, is near it, and 3 leagues from Ganjam. A little to the south-west of Carapar Hill, upon a woody and level piece of land, stands Mansoorcote Pagoda. The river of Carapar, or Mansoorcote, is about 4 leagues to the south-west of Ganjam, having a small fort at its entrance. When a scarcity prevails on the coast, ships carry rice from Bengal to this place. An aggregate of 60,000 tons of shipping now annually visit this place. There is a large, white building on the beach, a godown for the Aska sugar, which is exported from this place. The custom-house is to the south of the godown. At Gopalpore there is now a fixed light, elevated 85 feet, and visible 10 miles; it is not far from the custom-house. The anchorage is with the Port flagstaff N.N.W. ½ W., the southernmost large buildings on the beach N.W.N., the northernmost large building N.N.W., in from 7½ to 9 fathoms sand and mud about 1¼ miles off shore.

GANJAM (the flag-staff), in lat. 19° 22′ N., long. 85° 3′ E., bears from Calingapatam River nearly N.E. by N., distant 27 leagues. The coast between them is high, and may be approached in general to 12 or 14 fathoms, about a league from shore. This place, which is 12 miles to N.E. of Gopalpore, was formerly the capital of the Ganjam district; but, since 1815, it has been superseded by Chicacole. The town stands on an elevated portion of the plain, with a range of mountains in the back-ground. The country to the north is low, and often flooded. At Ganjam a considerable trade is carried on, particularly by coasting vessels, many of which can enter the river, it being of considerable size. Ships may anchor in the road, abreast the fort or river entrance, in 8 or 9 fathoms, about 2 miles off shore. The bottom along this part of the coast is sometimes coarse sand and gravel, affording indifferent anchorage. Under 20 fathoms, about 3 or 4 miles from shore, the depths decrease suddenly in standing towards it. From Vizagapatam the bank of soundings lining the coast has generally from 40 to 45 fathoms on the edge of it, about 4 or 5 leagues off shore, then a sudden declivity to no ground. From 20 to 30 fathoms are good depths to preserve in coasting along with a fair wind.

APPENDIX No. XIV.

TABLE OF LIGHT-HOUSES ROUND THE COAST OF THE MADRAS PRESIDENCY, WEST TO EAST, INCLUDING CEYLON.

Name.	Location, &c.	Lat., N.	Long., E	Number.	Colour.	Fixed, flashing, intermitting, alternating or revolving.	Interval.	Miles visible in clear weather.	Arc of illumination. (Bearings are magnetic and from seaward.)	Remarks.
Mangalore ...	Hill above town. Small masonry tower (white).	12° 52′ 17″	74° 50′ 8″	1	White	F.	...	14	180°	Harbour light.
Cannanore ...	Near the beach. Small masonry tower.	11 51 10	75 21 45	1	Red	F.	...	6	180°	Harbour light.
Tellicherry ...	On the Fort wall. Small masonry tower.	11 44 50	75 28 30	1	White	F.	...	8	158°, or between the bearings of S.-E. by E. and N.-W. by N.	Harbour light.
Calicut ...	Near the beach. White laterite column.	11 15 5	75 45 35	1	White	F.	...	14	180° from S.-E. to N.-W., facing seaward.	To guide vessels to the anchorage clear of the reef which lies about one mile S. 30° W. from the light. A small Red light is exhibited from the T head of the pier, as a guide for small coasting craft when entering the port.
Beypore ...	Near the beach from the flagstaff.	11 10 0	75 47 0	...	Red	F.	...	5	180°	As a guide for vessels to the anchorage.
Cochin ...	On a small mound which formed a bastion of the old fort, to the south of the harbour. White laterite column.	9 57 47	76 13 45	1	White	F.	...	15	270°	Harbour light. During the S.-W. monsoon when Cochin port is avoided by shipping, a small light is exhibited from a flagstaff, at Naracal, about five miles to the northward of Cochin.
Alleppey ...	On the sandy beach, about one cable inland, close to the flagstaff. Masonry.	9 30 0	76 19 0	1	White	Rev.	A bright flash every minute.	20	All round	This light is in the territory of His Highness the Maharajah of Travancore. The lantern is provided with an expensive holophotal apparatus, in order to guide ships to the smooth water anchorage in the vicinity, which the ordinary catoptric system would fail to accomplish during the stormy weather on this coast from May to November.
Cadiapatam.	Situated upon high red coloured land, 300 yards from the sea, which is here fringed with steep gray cliffs. Dark gray granite column.	8 7 30	77 18 10	1	White	F.	...	20	All round	This light, in the territory of Travancore, is intended to mark the vicinity of the Crocodile Rock which bears from it S.-W., distant 2¾ miles. The light-keeper's and mission bungalows are white buildings with thatched roofs.
Colombo ...	Clock-tower, centre of fort. Brick masonry, square, gray-looking building.	6 55 40	79 50 40	1	White	Rev.	Every 30 seconds.	17	All round the compass.	A life-boat station. Coast light.
Colombo ...	Pier-head at end of breakwater round tower of concrete blocks.	6 57 0	79 50 40	1	Red	F.	...	13	235°, or from south round by west to N. 55° E.	Harbour light.
Point de Galle.	On S.-W. bastion of fort. West side of harbour. Iron tower. White.	6 1 25	80 12 32	1	White	F.	...	12	200°	For vessels making the port, and also for ships rounding the island of Ceylon on their course either to the eastward or westward. A first-class light has been sanctioned for this port, to be placed on Oonawatty Point.
Great Basses.	On the N.-E. rock. Granite masonry. The lantern has a conical roof and there is a gallery at the top of the tower.	6 10 10	81 28 0	1	Red	Rev.	Every 45 seconds.	16	All round the compass.	In foggy weather a bell is sounded at intervals of fifteen seconds.
Little Basses.	On reef. Granite masonry. The lantern has a domed roof and there are two galleries at the top of the tower.	6 22 55	81 43 12	1	White.	Int.	Every minute.	16	All round the compass.	During thick or foggy weather a bell is sounded twice in quick succession every half minute.
Batticaloa ...	On the flagstaff, near the mouth of Batticaloa Lake.	7 43 50	81 41 20	1	White	F.	...	8 to 10	220° or to the beaches northward and southward.	......
Trincomalee.	On Foul Point extreme. Round gray tower of Portland cement.	8 32 10	81 18 30	1	White	F. & Fl.	Every 30 seconds.	17	All round the compass.	The faint light between the flashes is not visible beyond ten miles.
Trincomalee.	On the summit of Round Island. Round gray tower of Portland cement.	8 31 40	81 13 15	1	White	F.	...	10	All round the compass.	To enable vessels to enter or leave the port at night.

Name.	Location, &c.	Lat., N.	Long., E.	Number.	Colour.	Fixed, flashing, intermitting, alternating or revolving.	Interval.	Miles visible in clear weather.	Arc of illumination. (Bearings are magnetic and from seaward).	Remarks.
Tuticorin ...	North extreme of Hare Island or Paundiandeev, $2\frac{1}{2}$ miles east of Tuticorin. Sandstone column, coloured brown, lantern white.	8° 47′ 10″	78° 11′ 20″	1	White	F.	...	14	All round the compass.	Harbour light.
Paumben Pass.	On a sand-hill, about one mile east of Northern Channel. Circular. Masonry column.	9 17 14	79 12 38	1	White	F.	...	14	All round the compass.	Is a guide to vessels making for the Paumben Channel.
Negapatam ...	On bastion. Masonry column. White.	10 45 30	79 50 20	1	White	F.	...	14	180°, or the whole sea horizon.	Harbour light.
Caricaul (French territory).	At the mouth of the River Arasilaur. Flagstaff.	10 55 0	79 50 35	1	White	F.	...	8 to 10	The whole sea horizon.	A port light.
Pondicherry (French territory).	In square, near the beach. Masonry.	11 55 25	79 49 35	1	White	F.	...	12 to 15	In every direction seaward.	For the guidance of vessels entering the port at night.
Madras ...	On esplanade, north of the fort. Granite column.	13 5 11	80 16 51	1	White	Fl.	Every 2′ 48″ bright, 72″ dark.	20 to 30	310°, facing east ...	To guide vessels clear of the Poolicat Shoal and into the roadstead. Mariners should not bring this light to southward of S. S. W. $\frac{1}{2}$ W. to avoid Poolicat Shoal.
Poolicat ...	Near the beach. Masonry column. White and black bands.	13 25 15	80 19 6	1	White	F.	...	14	180°, or the whole sea horizon.	To guide vessels clear of the Poolicat Shoal. When the light bears W. $\frac{1}{2}$ N., a vessel is to the northward of all dangers.
Armegam ...	Mainland, village of Manapollem. Masonry column. White.	13 53 8	80 11 47	1	White	Fl.	...	14	180°, or the whole sea horizon.	Warns vessels off the Armegam Shoal, the shoalest part of which ($1\frac{3}{4}$ fathoms) lies six miles off shore.
Point Divy ...	2 miles N.-W. of Point Masonry column. White.	. 15 58 55	81 9 25	1	White	F.	...	14	225°, or from N. through west to S.-W.	Is intended to point out the position of the danger.
Masulipatam.	In the fort. Flagstaff.	16 9 15	81 9 25	1	White	F.	...	6	180°	Is a harbour light, and was originally red; but being only a sixth order light, it was altered to a white light, by the removal of the coloured media.
Coringa ...	On southern part of Hope Island. Masonry tower. Horizontal alternate bands of black and white.	16 49 5	82 18 58	1	White	F.	...	10 to 12	All round the compass.	Intended to lead vessels clear of the rocks and shoals off Godavery Point; but being considered unsuitable in every way, a 4th order dioptric light is to be substituted for it.
Cocanada ...	$4\frac{3}{4}$ miles north of Cocanada river. 500 yards from the shore.	17 0 40	82 16 30	1	White	R.	...	14	In every direction seaward.	This light is intended to lead vessels clear of the shoals to the northward of point Godavery, when coming into the Cocanada anchorage, from the southward and eastward.
Santapilly ...	On Santapilly Hill, three-quarters of a mile inland. On the roof of a house.	18 4 56	83 37 35	1	Whit e	F.	...	14	180°, facing S.-E. ...	Exhibited to warn mariners off the Santapilly Rocks, from which this light bears N.-W. $\frac{5}{8}$ W. distant $6\frac{1}{3}$ miles.
Calingapatam	On the Point. Obelisk of cut stone. Column, white; capital, dark-blue.	18 19 0	84 7 30	1	White	F.	...	8	...	Intended to warn vessels off a small reef which projects from the point and which should not be passed in less than 8 fathoms when making the port at night.
Gopalpore ...	On mainland, 60 yards from low-water mark. Flagstaff, painted white.	19 13 0	84 52 0	1	White	F.	...	10	180°, or the whole sea horizon.	Intended as a guide to vessels making the anchorage at night, and exhibited on the special requisition of commanders of the British India Steam Navigation Company's mail steamers.

APPENDIX No. XV.

CATTLE DISEASES PREVALENT IN SOUTHERN INDIA.

Glanders is a malignant and highly contagious disease affecting the horse tribe, capable of being conveyed to man and 'vice versâ,' due to the introduction into the system, or of a generation within it, of a special poison. Its effects are most noticeable upon the mucous membrane of the nose and the various glands of the body. It is most fatal and quite incurable. Glanders is said to be endemic in Madras city, and this is doubtless the case. Two years ago over 30 horses of the Royal Artillery, Saint Thomas' Mount, were destroyed from this disease, and two ponies lately died of it in the most crowded part of Madras.

2. *Rinderpest, or cattle plague*, is a frequent and fatal disease in many parts of the country. A week to a fortnight after an animal has been exposed to infection, it falls sick and the disorder rapidly spreads in a herd. It is difficult in the earliest stages to decide as to the exact nature of the disease, but later very marked symptoms set in. Among these are extreme weakness amounting to prostration, remarkable twitchings of the muscles of the body, severe diarrhœa with a very foul and peculiar smell of the matter passed, which is often mixed with blood, eruptions of the membrane of the nose, mouth, and certain parts of the skin, such as those covering the female organs and the milk bag, and a very strange cough is generally present. After death, the bowels and stomach especially are found diseased, and large patches of blood which has escaped from the veins are found in different parts of the body. Cattle suffer from this disorder and sheep can take it from them; it is highly communicable.

3. *Anthrax, or black disease*, is the most serious of all, because it can be communicated to any animal and even to man; it is highly fatal to cattle, sheep, and horses in India. It is seldom curable, and appears under the most varied forms, of which the following are the principal:—(*a*) *Anthrax fever*. This is the name given to this disease when it affects the horse. It proves very fatal, and is common in India. The symptoms are high and rapid fever, very quickly followed by prostration, and there are blood coloured spots in the eye, nose, and mouth, also some frothy matter is passed through the nostrils just before death, which is sudden. (*b*) *Splenic apoplexy*. A bullock suddenly becomes ill and quite prostrate, his nose and eyelids assume a dark red or almost black colour, he passes much dark blood from the bowels mixed with dung and dies in a very short time. When he is opened the blood is found to be black-red in colour, the spleen enormous in size, and full of dark tarry blood, and the body decomposes very rapidly. (*c*) *Quarter ill*. This commences with lameness generally of one hind limb which rapidly becomes swollen, and gas collects under the skin, crackling when pressed upon. This form is most frequent in calves, when they are first turned out on a rich pasture. As in all the other forms fever runs high, and death rapidly ensues. (*d*) *Malignant sore throat*. This is denoted by the animal being very unwell and weak; there are all the symptoms of inflammation of the tongue and throat, the mouth is black, and the breadth most offensive. Death very rapidly ensues, and treatment is powerless to avert it. (*e*) *Gloss anthrax*. This is a form where the local manifestations are swelling, blackness, and mortification of the tongue and death is frequently caused by the obstruction of the free passage of air to the lungs. (*f*) *Broxy*. This is the term applied to anthrax affecting sheep. It is a most common cause of loss, and may resemble either of the above described forms seen in cattle. (*g*) *Carbuncles*. These and anthrax fever are seen in men as a result of inoculation with blood, or other matter, from diseased animals; even dry hides may convey this terrible and fatal disorder, and many people who sort wool die, from that wool having been taken from sheep which have died from this disorder. The real cause of this disease is now known to be the presence of very small parasites in the blood, which grow and increase rapidly there. When an animal dies from anthrax, and its blood is shed over grass, or its carcase torn in pieces by wild beasts and birds, these parasites fall on to the soil and develop there, and may even after a year's time give disease to animals pasturing on the grass which grows on this spot. The carcases of animals who have died from communicable disease should therefore be got rid of by burning, no other method being safe. Jackals, kites, and other scavengers spread anthrax, but strange to say flesh-eating animals scarcely suffer from it; even such small creatures as ants, flies, and earthworms however, are large enough to disseminate anthrax parasites, and spread the disease by this means. On opening an animal with this disease, the blood is found to be black and liquid like tar; these parts which are particularly diseased are very black and swollen, and decompose readily, and there are blood spots and patches in almost every part of the body.

4. *Foot and mouth disease* is a highly infectious and contagious disease, communicable to animals of all kinds; it proves very fatal even to common poultry. As its name shows, it is an eruption in the mouth and on the feet, but in some cases the mouth, and in others the feet only are affected. The eruptions in the mouth are white bladders, which may be broken, when a red skin is left, and they extend to the tongue, roof of mouth, gums, &c. The feet become swollen, the animal lame, and ulcers soon appear around the coronet, particularly in the cleft between the toes. The animal shakes the feet frequently, and saliva hangs in strings from the mouth. The lameness prevents roaming in search of food, while the soreness of the mouth hinders the process of eating, so that an animal attacked is apt to lose condition very rapidly, and needs much strengthening diet. The fatality due to this disease in India is probably the result of starvation; as cattle very seldom die from foot and mouth disease in England. The milk supply is diminished by it, and what milk is given may cause severe diarrhœa in children.

5. *Pleuro-pneumonia* is commonly known as "lung disease." It is not so frequent in India as either anthrax, rinderpest, or foot and mouth disease. Other diseases, such as simple inflammation of the lungs, or stomach, are apt to be mistaken for it, but it can at once be detected by an experienced observer. There are all the symptoms of common inflammation of the lungs, accompanied by a very strange cough, and a peculiar grunt while breathing. The breathing is much disturbed, the symptoms develop slowly, and generally lead to death. When the body is opened usually only one lung is much diseased, which is swollen, green in colour, and has an unwholesome smell. When cut into it looks like various coloured marble. There is much watery fluid and straw-coloured bands in the chest binding the lungs to the walls. This disease is very slow in development, and the attack extends over a long time. It is highly infectious, but as far as is yet known extends only to the ox, buffalo, and deer.

6. *Tuberculosis* is another very serious disorder, slow in its progress, and very fatal. It is remarkable for the number of different forms it may assume, according as it affects the lungs, bowels, or other parts of the body, which become the seat of collections of diseased matter, and look when opened, like cream or cheese according as they are moist or dry. The progress of the disease is slow, and it is liable to be mistaken for others. Rapid wasting away is always present, and usually a distressing cough. Man may take this disease from eating the flesh, or drinking the milk of animals attacked by it. Although cattle are most liable to attack, other kinds of animals frequently suffer; well-bred cattle die from it most frequently, and it kills many calves.

7. *Sheep-pox* is a disorder very like human small-pox; it is frequent in India, and may be distinguished by pock-like eruptions inside the thighs, on the lips, and in the mouth and nostrils, in fact wherever the skin is thin, and especially on the membranes of the body. There is a discharge from the nostrils, diarrhœa, great weakness, and fever. The pocks may be few and wide apart from one another, or may run together and form large sores. The fever sets in about ten days after sheep have been with diseased ones, the attack lasts on an average over a fortnight, and death may ensue from weakness. Sheep-pox is highly infectious among sheep, but it differs from cow-pox.

8. *Cow-pox* is a very mild disease of the same nature as the last in which pocks form on the milk-bag and teats of

the cow, and give a thin watery liquid, which, when used for vaccinating men, prevents small-pox.

9. *Rabies*, or "madness" of the dog, is very prevalent in and around Madras, as the frequent deaths of people from this disease in the hospitals very clearly shows. It is often difficult to detect. The dog behaves peculiarly and contrary to its general manner, is very inclined to stray, and is liable to bite any person or animal it may meet. The bark is very peculiar, and is sufficient to enable any one familiar with it to detect a case of the disease. There is a flow of saliva from the mouth, and the eyes are very red. Later on paralysis of the hind limbs sets in and death quickly ensues. The bite of a mad dog is most dangerous, because the saliva conveys the disease when it enters the wound. Immediately after the bite has been received, it should be sucked freely, a cloth tied tightly above the bitten part (if leg or arm), and a red-hot iron or some caustic, such as lunar caustic or caustic potash, applied freely to every part of the wound. Since stray dogs are the principal cause of spread of rabies, they should be destroyed. Most important cities have regulations under which this is carried out either by the police or by special agents.

10. *Parasitic diseases* may be considered under the following heads:—(*a*) *Rot.* This is most frequently seen in sheep, but is also found in cattle and even in foals. The parasites grow in the liver, and cause death by exhausting the animal, which becomes very thin and weak, its eyes and mouth looking very pale or yellow. If a sheep, its wool becomes loose, and its belly, throat, or legs dropsical. The diseased animal dies only when reduced to a perfect skeleton. This disease is most frequent among flocks which graze on low lying tank land and after flood. (*b*) *Hydatids.* These are white bladder-like animals, full of water, which may be found in the liver and lungs of almost all Indian cattle. Sometimes they are so numerous, that the liver and lungs cannot work properly, or a large one may burst and discharge its fluid into the cavity of the belly or chest, causing death. Although so frequent, they are not generally large enough to cause inconvenience, and an animal slaughtered in health may have many of them inside of it. Thus they are seldom a very serious matter, and meat need not be condemned because they are present. Parts containing such bladders should never be given to dogs to eat, but should be destroyed by burning. (*c*) *Gid or turnsick.* This is due to a similar parasite in the brain. It most frequently occurs in sheep, but cases every now and then are seen in the ox. The principal symptoms are staring eyes, and the animal turns constantly round and round in the same direction. The heads of sheep thus diseased should not be given to dogs to eat. (*d*) *Skin disease.* Some of the most troublesome of the numerous diseases of the skin are due to parasitic animals or plants, moulds, or fungi. Mange is the name generally given to the disorder which results from small animals burrowing under the skin. When it affects sheep, it is called scab. Animals thus diseased lose their hair, itch a great deal, and scrape themselves bare in their attempts to relieve the irritation. This disease can be conveyed from one sheep to another, from one ox to another, and so on, but an ox will not take scab from a sheep, nor 'vice versâ.' Mange is one of the most frequent and contagious of diseases, and although it does not cause death, it keeps an animal weak and prevents it from thriving. (*e*) *Ringworm.* This is a loss of hair in circular spots, most often seen in young animals, and is due to a plant growing in the skin. It is not very important because it is not fatal. It is very contagious to man as well as to animals.

APPENDIX No. XVI.

POPULATION OF THE MADRAS PRESIDENCY ACCORDING TO THE LATEST CENSUS, SHOWN IN ONE TABLE.

Districts.	Inhabited houses. Number of masonry dwellings.	Inhabited houses. Number of dwellings of all other kinds.	Inhabited houses. Total.	Population. Adults (above twelve years of age). Men.	Population. Adults (above twelve years of age). Women.	Population. Children (under twelve years of age). Male.	Population. Children (under twelve years of age). Female.	Population. Age not stated. Male.	Population. Age not stated. Female.	Population. Total.	Number per square mile.	Classification of population. Christians. Europeans.	Classification of population. Christians. Eurasians.	Classification of population. Christians. Natives.	Classification of population. Christians. Others.	Classification of population. Christians. Not stated.	Classification of population. Hindoos.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Anantapore	Particulars not available.	Particulars not available.	119,128	224,419	209,726	80,985	84,668	48	43	599,889	117	14	56	431	...	356	558,585
Bellary			142,117	270,734	255,064	97,843	102,498	73	63	726,275	127	536	71	1,120	...	2,402	653,072
Chingleput			142,182	331,191	321,206	161,401	167,511	34	38	981,381	345	1,683	1,174	13,804	...	113	939,314
Coimbatore			354,920	541,862	576,078	264,913	274,647	84	106	1,657,690	211	274	272	10,111	...	2,669	1,606,343
Cuddapah			247,186	416,410	394,181	153,497	156,835	63	52	1,121,038	128	42	282	4,592	...	1,151	1,017,211
Ganjam			278,081	471,523	495,051	267,468	268,391	432	436	1,503,301	484	126	222	774	...	415	1,495,229
Godavery			317,323	573,113	595,608	310,249	301,308	164	171	1,780,613	273	250	409	2,580	...	646	1,737,855
Kistna			268,849	525,906	512,533	254,576	255,246	106	113	1,548,480	183	52	73	15,967	...	20,102	1,425,013
Kurnool			142,642	255,414	244,395	88,395	90,214	62	71	678,551	90	52	35	5,830	...	5,538	591,199
Madras			48,286	144,476	148,717	55,652	56,900	42	61	405,848	15,031	3,205	12,659	22,428	14	1.325	315.527
Madura			395,096	685,610	779,040	346,999	356,788	98	145	2,168,680	258	176	377	84,061	...	286	1,942,820
Malabar			404,968	778,443	806,819	395,583	383,746	248	196	2,365,035	410	1,558	1,524	20,172	...	19,942	1,669,271
Nellore			233,059	434,421	423,022	180,798	181,780	113	102	1,220,236	140	33	320	17,289	...	3,152	1,138,031
Neilgherries			17,844	38,111	27,187	12,852	12,861	13	10	91,034	95	1,698	1,012	5,462	2	314	78,970
North Arcot			279,328	622,011	614,446	285,253	295,912	90	102	1,817,814	251	115	446	8,398	...	1,059	1,717,595
Salem			311,393	542,597	572,494	235,811	248,541	75	77	1,599,595	209	180	445	15,782	...	160	1,531,855
South Arcot			243,773	616,082	607,737	289,619	301,156	70	74	1,814,738	372	84	375	35,678	...	3,434	1,721,614
South Canara			171,432	316,086	331,141	156,080	156,063	70	74	959,514	246	120	127	14,667	...	43,301	797,430
Tanjore			374,532	688,991	757,045	337,443	346,690	94	120	2,130,383	583	168	677	75,509	...	1,904	1,939,421
Tinnevelly			366,597	554,543	598,267	271,261	275,500	83	93	1,699,747	315	125	566	138,716	...	1,539	1,468,977
Trichinopoly			201,180	400,756	434,315	185,622	194,197	56	87	1,215,033	341	177	371	58,261	...	2,631	1,119,434
Vizagapatam			370,785	587,688	592,759	309,202	300,352	226	241	1,790,468	515	163	394	982	...	1,863	1,766,840
Total ...			5,430,701	10,020,387	10,296,831	4,741,502	4,811,804	2,344	2,475	29,875,343	249	10,831	21,887	552,614	16	114,302	27,231,606
Bunganapully			6,552	11,945	11,605	3,535	3,666	3	...	30,754	121	...	...	9	...	...	24,793
Poodoocottah			58,449	96,109	110,381	46,697	48,930	4	6	302,127	274	1	...	11,371	...	...	281,809
Sundoor			2,173	3,839	3,751	1,459	1,483	...	...	10,532	64	2	...	3	...	6	9,000
Total ...			67,174	111,893	125,737	51,691	54,079	7	6	343,413	226	3	...	11,383	...	6	315,602
Agency Tracts specially censused. Ganjam			58,565	382	35	7	11	* 129,652	* 116,215	246,303	47	3	...	5	...	6	245,945
Agency Tracts specially censused. Vizagapatam			152,681	675	603	313	302	† 356,746	† 336,034	694,673	49	5	2	...	...	1	693,634
Agency Tracts specially censused. Godavery			2,410	104	22	12	10	5,327	5,424	10,899	13	...	3	2	...	3	10,879
Total ...			213,656	1,161	660	332	323	491,726	457,673	951,875	48	8	5	7	...	10	950,458
Grand Total ...			5,711,531	10,133,441	10,423,228	4,793,525	4,866,206	494,077	460,154	31,170,631	221	10,842	21,892	564,004	16	114,318	28,497,666

* Includes		Males.	Females.
	Adults	78,424	70,788
	Juveniles ...	51,228	45,427
	Total ...	129,652	116,215

† Includes		Males.	Females.
	Adults	212,920	212,668
	Juveniles ...	143,826	123,366
	Total ...	356,746	336,034

POPULATION OF THE MADRAS PRESIDENCY ACCORDING TO THE LATEST CENSUS, SHOWN IN ONE TABLE—(*Continued*).

Districts.	Classification of population—(*Continued*). Mahomedans.	Booddhists and Jains.	Others.	Occupation. Male agriculturists.	Male non-agriculturists.	Prevailing languages.
	19	20	21	22	23	24
Anantapore	40,239	203	5	156,794	148,658	{1, Teloogoo (699,674) ; 2, Canarese (502,711) ; 3, Hindostany (94,846).
Bellary	68,246	758	70	178,495	190,155	{4, Mahratty (14,169) ; 5, Tamul (11,351) ; 6, Lumbaudy (7,219).
Chingleput	25,034	229	30	217,765	274,861	1, Tamul (730,271) ; 2, Teloogoo (221,434) ; 3, Hindostany (18,382) ; 4, Canarese (5,010).
Coimbatore	37,855	131	35	351,209	455,650	1, Tamul (1,086,077) ; 2, Teloogoo (344,271) ; 3, Canarese (201,296) ; 4, Hindostany (18,396).
Cuddapah	97,749	...	11	279,401	290,569	1, Teloogoo (1,013,368) ; 2, Hindostany (78,706) ; 3, Canarese (9,077) ; 4, Yerkalar (6,224).
Ganjam	5,729	270	536	270,988	468,435	1, Ooriyah (748,904) ; 2, Teloogoo (692,344) ; 3, Savara (31,465) ; 4, Khond (20,344) ; 5, Hindostany (7,019).
Godavery	38,786	17	70	372,670	510,856	1, Teloogoo (1,715,772) ; 2, Hindostany (30,216) ; 3, Khond (25,025).
Kistna	87,161	8	104	336,346	444,242	1, Teloogoo (1,451,954) ; 2 Hindostany (78,800) ; 3, Yerkalar (5,914) ; 4, Lumbaudy (5,565).
Kurnool	75,875	6	16	145,128	198,743	1, Teloogoo (619,000) ; 2, Hindostany (69,257) ; 3, Canarese (8,113).
Madras	50,298	164	228	3,904	196,266	1, Tamul (239,108) ; 2, Teloogoo (94,330) ; 3, Hindostany (46,410) ; 4, English (17,099).
Madura	140,948	9	3	491,335	541,372	1, Tamul (1,728,703) ; 2, Teloogoo (307,329) ; 3, Canarese (84,128) ; 4, Putnool (30,510) ; 5, Hindostany (12,850).
Malabar	652,198	211	159	346,868	827,406	1, Malayalám (2,195,181) ; 2, Tamul (101,288) ; 3, Canarese (23,162) ; 4, Teloogoo (19,088) ; 5, Hindostany (7,582).
Nellore	61,344	...	67	267,836	347,496	1, Teloogoo (1,141,504) ; 2, Hindostany (50,010) ; 3, Tamul (222,451).
Neilgherries	3,531	...	45	21,433	29,543	1, Canarese (50,769) ; 2, Tamul (19,879) ; 3, Malayalam (7,431).
North Arcot	82,438	7,761	2	442,353	465,001	1, Tamul (987,029) ; 2, Teloogoo (733,845) ; 3, Hindostany (50,266) ; 4, Canarese (29,225) ; 5, Mahratty (11,662).
Salem	51,092	64	17	387,347	391,136	1, Tamul (1,131,868) ; 2, Teloogoo (295,015) ; 3, Canarese (118,353) ; 4, Hindostany (37,670) ; 5, Mahratty (7,908).
South Arcot	48,289	5,261	3	472,759	433,012	1, Tamul (1,572,445) ; 2, Teloogoo (196,727) ; 3, Hindostany (28,244) ; 4, Canarese (11,556).
South Canara	93,652	10,055	162	214,304	257,932	1, Tooloo (425,579) ; 2, Canarese (203,417) ; 3, Malayalam (161,819) ; 4, Mahratty (147,390) ; 5, Hindostany (15,372).
Tanjore	112,058	627	19	432,425	594,103	1, Tamul (1,991,279) ; 2, Teloogoo (85,670) ; 3,, Putnool (16,078) ; 4, Mahratty (14,421) ; 5, Hindostany (12,309) ; 6, Canarese (7,122).
Tinnevelly	89,767	...	57	340,955	484,932	1, Tamul (1,438,767) ; 2, Teloogoo (233,844) ; 3, Canarese (12,490) ; 4, Hindostany (7,497).
Trichinopoly	34,104	39	16	299,178	287,256	1, Tamul (1,017,153) ; 2, Teloogoo (146,983) ; 3, Canarese (26,736) ; 4, Hindostany (15,221).
Vizagapatam	19,372	695	159	415,732	481,384	1, Teloogoo (1,726,095) ; 2, Ooriyah (21,460) ; 3, Khond (12,761) ; 4, Hindostany (12,138).
Total ...	1,915,765	26,508	1,814	6,445,225	8,319,008	
Bunganapully	5,952	...	...	6,043	9,440	
Poodoocottah	8,946	...	...	74,882	67,928	1, Tamul (285,432); 2, Teloogoo (9,480).
Sundoor	1,521	...	...	2,571	2,727	
Total ...	16,419	...	...	83,496	80,095	
Agency Tracts specially censused. Ganjam	344	...	...	62,434	67,608	
Agency Tracts specially censused. Vizagapatam	1,031	...	...	232,102	125,632	
Agency Tracts specially censused. Godavery	12	...	...	5	5,438	
Total ...	1,387	...	...	294,541	198,678	
Grand Total ...	1,933,571	26,508	1,814	6,823,262	8,597,781	

NOTE.—In the census of 1881, occupations have not been tabulated by ages except for males in towns. The figures given in columns 22 and 23 show the total male agricultural and non-agricultural population including children.

APPENDIX No. XVII.

CONSPECTUS OF CENSUS FIGURES FOR THE WHOLE OF INDIA, &c.

(1) *General Statistics under the different Administrations.*

Presidencies, Provinces, and Divisions.	No. of districts.	Area in square miles.	No. of towns and villages.	Population, 1881.
Governor-General of India—				
Ajmeer	2	2,711	739	460,722
Berar	6	17,711	5,585	2,672,673
Coorg	1	1,583	503	178,302
Andaman Islands	1	880	51	14,628
Total ...	10	22,885	6,878	3,326,325
Lieutenant-Governor of Bengal—				
Burdwan	6	13,855	30,054	7,393,954
Presidency	7	12,029	19,251	8,204,912
Rajshahy	7	17,428	28,854	7,733,775
Dacca	4	15,000	28,022	8,700,939
Chittagong	4	12,118	11,113	3,574,048
Bengal Proper ...	28	70,430	117,294	35,607,628
Behar—				
Patna	7	23,647	44,591	15,063,944
Bhaugalpore	5	20,492	32,816	8,063,160
Total Behar ...	12	44,139	77,407	23,127,104
Orissa	5	9,053	24,894	3,730,735
Chota Nagpore	4	26,966	29,111	4,225,989
Sunderbunds	...	5,976	...	...
Total Bengal ...	49	156,564	248,706	66,691,456
Chief Commissioner, Assam—				
Soormah Valley	2	6,725	9,340	2,258,434
Brahmapootra Valley	7	21,414	10,232	2,249,185
Total Plains District ...	9	28,139	19,572	4,507,619
Hill Districts ...	4	18,202	2,836	373,807
Total Assam ...	13	46,341	22,408	4,881,426
Lieutenant-Governor, N.-W. Provinces and Oudh—				
Meerut	6	11,319	8,274	5,141,204
Agra	6	10,151	8,125	4,834,064
Rohilcund	6	10,885	11,327	5,122,557
Allahabad	6	13,746	11,934	5,754,855
Benares	7	18,338	29,694	9,820,728
Jhansee	3	4,983	2,152	1,000,457
Koomaon	3	12,438	9,578	1,046,263
Lucknow	3	4,504	4,694	2,622,681
Seetapore	3	7,555	5,845	2,777,803
Fyzabad	3	7,311	7,362	3,230,393
Rye Bareilly	3	4,881	6,436	2,756,864
Total N.-W. Provinces and Oudh ...	49	106,111	105,421	44,107,869

Presidencies, Provinces, and Divisions.	No. of districts.	Area in square miles.	No. of towns and villages.	Population, 1881.
Lieutenant-Governor, Punjaub—				
Delhi	3	5,610	2,724	1,928,596
Hissar	3	8,355	1,752	1,311,067
Umballa	3	3,963	3,348	1,729,043
Jullunder	3	12,571	3,982	2,421,781
Umritsar	3	5,354	5,623	2,729,109
Lahore	3	8,987	3,871	2,191,517
Rawulpindee	4	15,435	4,594	2,520,508
Mooltaun	4	20,295	4,364	1,712,394
Derajaut	3	17,681	1,826	1,137,572
Peshawar	3	8,381	2,240	1,181,289
Khyber Pass	...	...	...	8,173
Total Punjaub ...	32	106,632	34,324	18,850,437
Chief Commissioner of Central Provinces—				
Nagpore	5	24,040	8,221	2,758,056
Jubbulpore	5	18,688	8,512	2,201,633
Nerbudda	5	17,513	6,155	1,763,105
Chatisgurh	3	24,204	11,724	3,115,997
Total Central Provinces ...	18	84,445	34,612	9,838,791
Chief Commissioner, British Burmah—				
Arracan	4	14,526	3,530	587,518
Pegu	4	9,159	4,430	1,162,393
Irawaddy	4	16,805	4,780	1,161,119
Tennasserim	7	46,730	3,117	825,741
Total British Burmah ...	19	87,220	15,857	3,736,771
Governor of Madras	21	139,900	52,051	30,868,504
Governor of Bombay—				
Northern Division	7	15,897	6,381	4,147,928
Central do.	6	37,407	8,890	5,315,123
Southern do.	5	22,782	5,909	3,804,344
Scinde	5	48,014	3,417	2,413,823
Bombay City and Island	...	22	1	773,196
Total Bombay ...	28	124,122	24,598	16,454,414
Total British Territory ...	234	874,220	544,855	198,755,993

(2) *The same in Native States.*

Native States.	District.	Area.	Towns and villages.	Population, 1881.
Baroda	6	8,570	3,012	2,185,005
Central Indian Agency	82	75,079	31,506	9,261,907
Hyderabad	19	81,807	20,398	9,845,594
Mysore	8	24,723	17,655	4,186,188
Rajpootana Agency	20	129,750	30,001	10,268,392
Bengal	4	36,634	16,059	2,845,405
North-West Provinces	2	5,125	3,322	741,750
Punjaub	36	35,817	18,546	3,861,683
Central Provinces	15	28,834	11,242	1,709,720
Madras	3	9,192	4,971	3,303,563
Bombay	20	73,753	13,191	6,941,249
Total Native States ...	215	509,284	169,903	55,150,456
Grand Total India ...	499	1,383,504	714,758	253,906,449

(3) *Population of* 60 *Towns with over* 50,000 *Inhabitants.*

Towns.	Population.	Towns.	Population.	Towns.	Population.	Towns.	Population.
		Rangoon	134,176	Shahjehaunpore ...	74,830	Fyzabad	55,570
Calcutta (with suburbs)	871,504	Poona	129,751	Madura	73,807	Bhopaul	55,402
Bombay	773,196	Ahmedabad ...	127,621	Kurrachee ...	73,560	Mongheer ..	55,372
Madras	405,848	Surat	113,417	Mooltaun	68,674	Tanjore	54,745
Hyderabad ...	354,692	Bareilly	109,844	Bhaugalpore ...	68,238	Negapatam ...	53,855
Lucknow	261,303	Baroda	101,818	Umballa	67,463	Patiaula	53,629
Benares	199,700	Meerut	99,565	Moradabad ...	67,387	Bellary	53,460
Delhi	173,393	Nagpore	98,299	Bhurtpore ...	66,163	Moulmein ...	53,107
Patna	170,654	Lashcar	88,066	Durbhungah ...	65,955	Rawulpindee ...	52,975
Agra	160,203	Trichinopoly ...	84,449	Furruckabad ...	62,437	Jullunder	52,119
Bangalore ...	155,857	Peshawar	79,982	Coil	61,630	Chuprah	51,670
Umritsar	151,896	Dacca	79,076	Sholapore ...	61,281	Kamptee	50,987
Cawnpore ...	151,444	Gya	76,415	Sahauranpore ...	59,194	Salem	50,667
Lahore	149,369	Jubbulpore ...	75,705	Goruckpore ...	57,922	Combaconam ...	50,098
Allahabad ...	148,547	Indore	75,401	Calicut	57,085		
Jeypore	142,578	Rampore	74,250	Mirzapore ...	56,378		

(4) *Notes.*

The average density of the Native States is 108 per square mile; the average of all India 184. The density varies from 441 per square mile in Cochin and 403 in N.-W. Provinces and Oudh, to 79 in Rajpootana, and 43 in Burmah.

Of the population on British territory in 1881, 101,292,049 were males, and 97,498,349 were females, there being thus only 96 females to every hundred males, reversing the conditions found to prevail in Europe and America. Of the population of the Native States, 28,684,722 were males and 26,465,734 females, being only about 92 females per 100 males.

The leading languages and dialects, with the numbers who speak them, are as follows:—Hindostany, 82,497,168, Bengali, 38,965,428; Teloogoo, 17,020,358; Mahratty, 17,044,634; Punjaubee, 15,754,793; Tamul, 13,068,279; Goozeratee, 9,620,688; Canarese, 8,337,027; Ooriyah, 6,819,112; Malayalam, 4,848,400; Sindhee, 3,718,961; Burmese, 2,611,467.

Of the total population under British rule or suzerainty, 69,952,817 (including about 19 million females, or more than one-fourth) are connected with agriculture. Next to this class, come "workers" in all kinds of materials, or small manufacturers and their employers, numbering about 20 millions, of whom nearly one-half are females. Of this last class, the largest section, 2,607,579 males and 2,877,876 females, are connected with work in cotton and flax; 2,082,191 males and 733,089 females are connected with work in dress; 1,445,916 males and 1,719,513 females are classed as workers in vegetable food; 640,521 males and 449,205 females, workers in animal food; 789,699 males and 204,331 females, connected with drinks and stimulants; 667,286 males and 354,721 females, workers in stone and clay; 569,128 males and 259,839 females, workers in earthenware; 459,157 males and 13,799 females, workers in gold, silver and precious stones; 454,555 males and 18,806 females, workers in iron and steel; 406,357 males and 277,375 females, workers in bamboo, cane, rush, straw and leaves. Altogether, there are 47 different classes of workers, the numbers evidently including the children. Classed as domestic servants are 2,149,629 males and 651,966 females. Officials of various kinds, 791,379 males; connected with the army, 311,070 males; clergymen, priests, temple officers, 611,164 males; mercantile men, 983,869; general dealers, 886,148 males; carriers on roads, canals, and rivers, 958,000 males; labourers (undefined), 7,248,491 males and 5,244,206 females.

The British-born population in India, exclusive of the Army amounted, according to the census of 1871, to 64,061 persons, and in 1881 to 89,798. In 1881 there were 77,188 males and 12,610 females. In 1881 the British-born population was distributed as follows:—

N.-W. Provinces and Oudh.	20,184	Central India	4,674	Rajpootana	168
Punjaub	18,767	Hyderabad	2,956	Coorg	134
Bombay	12,608	Mysore	2,686	Berar	97
Bengal	10,583	Ajmeer	872	Cochin	21
Burmah	6,330	Assam	687		
Madras	5,892	Baroda	267	Total ...	89,798

Of this population the majority, 72,382 were between the ages of 20 and 40. Of the total British-born male population, 55,808 were returned as connected with the army, 2,996 with the civil service, 2,448 sailors of various grades, 2,319 connected with railways, 886 with commerce, 806 with the navy, 461 civil engineers, 541 agriculturists, 280 coffee planters, 178 missionaries, 321 surgeons and physicians.

The number of criminal cases tried in 1881 was 1,171,635; number of persons convicted, 644,778; of whom 468,280 were simply fined. Of the remainder, 478 were sentenced to death; 1,333 to transportation; 144,337 to imprisonment; 22,499 to whipping. This last form of punishment has greatly decreased recently, the number sentenced to whipping in 1877 was 72,815, in the same year the total number of persons convicted was,759,161. The total number of persons in prison at the end of the year 1881 was 98,677; in 1877 it was 133,538. The total number of police of all kinds at the end of 1881 was 147,544, and the total cost on that head was 2,330,513*l.*

(5) *Population of principal towns in different parts of the World for comparison.*

Amsterdam	361,326	Derby	81,168	Oldham	111,343
Baltimore	332,313	Dublin	249,602	Paris	2,239,928
Berlin	1,122,360	Dresden	222,241	Petersburgh	929,100
Birkenhead	84,006	Edinburgh	236,002	Philadelphia	847,170
Birmingham	400,774	Glasgow	674,095	Portsmouth	127,989
Blackburn	104,014	Hamburgh	410,127	Preston	96,537
Bolton	105,414	Hull	154,240	Prague	162,323
Bombay	773,196	Leicester	122,376	Rome	273,268
Bradford	183,032	Leeds	309,119	Rotterdam	166,002
Breslau	272,912	Lisbon	246,343	Salford	176,235
Brighton	107,546	Liverpool	552,508	Sheffield	284,508
Bristol	206,874	London	3,816,483	Stockholm	194,469
Brooklyn	566,663	Madras	405,848	Sunderland	116,542
Brussels	389,782	Manchester	341,414	The Hague	131,417
Buda-Pesth	360,551	Munich	230,023	Trieste	144,844
Calcutta	871,504	Newcastle	145,359	Turin	230,183
Cardiff	82,761	New York	1,206,299	Venice	129,445
Christiania	76,054	Norwich	87,842	Vienna	1,103,857
Copenhagen	273,323	Nottingham	186,575		

APPENDIX No. XVIII.

SPECIMENS OF PRINTED VERNACULAR CHARACTERS IN GENERAL USE IN THE PRESIDENCY.

Tamul.

மேற்கண்டவர்கள் முதல் மார்க்கடையில் கற்பி
க்கவேண்டும் வொவ்வொருமோஷன்களும் செக்
ஷன் - ஒன் நம்பர் - ௩ யில் சொல்லியபிரகாரம்
இடதுபாதம் பூமியில்விழும்போது கடைசியாக
வேண்டும் சிப்பாய்கள் லையினில் ஆடர் ஆரம்ஸ்
அன் பி கஸ்பைனிட்டில் நிற்கும்போது நடக்கும்
படி வுத்திரவுகிடைத்தால் முதல் அடியில் டிரை
யில் ஆரம்ஸ் செய்யவேண்டும் சிப்பாய்கள் லையி
னில் அல்லது பயிலில் பி கஸ்பைனிட்டாக நிற்கு
ம்போது நடக்கும்படி வுத்திரவுகிடைத்தால் சோ
ள்டர் ஆரம்ஸ் செய்யவேண்டும் ஒவ்வொருவேளை
யிலும் ஆள்ட் அல்லது ஆள்ட் பிரண்ட் ஆனபின்

Teloogoo.

అప్పుపత్రములున్ను సర్టిఫయిచేయబడిన కోర్టు
తీర్పు నకళ్లున్ను రెజిస్ట్రేషన్ చేసుకోవడమునుగురించి.
అప్పుపత్రములున్ను సర్టిఫయి చేయబడిన కోర్టుతీర్పు
నకళ్లున్ను 1877 సంవత్సరము 3డో ఆక్టుప్రకారం
రెజిష్టరుకాబడినయెడల రెజిష్టరుకానటువంటి దస్తావేజుల
కంటే యీ దిగువ కనుపరచిన ప్రయోజనములు కలిగి
యుంటున్నవి కాబట్టి అవియిష్టమువున్నయెడల రెజిష్టరు
చేసుకోతగినవిగానున్ను వాటిని రెజిష్టరుచేసుకుంటే భద్ర
మనిన్ని ప్రయోజనకరమనిన్ని యిందువలనజనులకు తెలియ
చేయడమయినది. మొదటిదయినటువంటిన్ని ప్రత్యక్షమ
యినటువంటిన్ని ప్రయోజనమేమనగా రెజిష్టరయిన అప్పు
పత్రముకున్ను సర్టిఫయిచేయబడ్డ కోర్టుతీర్పుల నకళ్ల

Canarese.

ಯಾವ ರೈಲ್ವೆ ನೌಕರನಾಗಲೀ ತಾನು ರೈಲ್ವೆ ಕೆಲಸದಮೇಲಿ
ವಾಸ್ತವ್ಯವಾಗಿ ಇರುತ್ತಿರುವಾಗ್ಯೆ ನಿಷಾ ವೃಳ್ಳುವನಾಗಿದ್ದರೆ -
ಯಾ - ಅಜಾಗ್ರತೆಯಾಗಿ ತನ್ನ ಕೆಲಸವನ್ನು ನೆರವೇರಿಸಲಿಕ್ಕೆ
ತಪ್ಪಿದರೆ - 50 ರೂಪಾಯಿಗಳ ವರೆಗಿನ ಜುರುಮಾನೆಗೆ ಗುರಿ
ಯಾಗುತ್ತಾನೆ, ಅಥವಾ - ಅಂಥಾ ನಿಷಾವಿನಿಂದ - ಯಾ - ಕೆಲಸ
ನೆರವೇರಿಸುವರೆ ತಪ್ಪಿದರಿಂದ ಯಾವನೊಬ್ಬ ಮನುಷ್ಯನ ಭದ್ರ
ತೆಗೆ ಪ್ರಾಯಶಃ ಅಪಾಯವಾಗುವದಾಗಿದ್ದರೆ, ಅಂಥಾ ನೌಕ
ರನು ಜುರುಮಾನೆ ಸಮೇತ ಒಂದು ಸಂವತ್ಸರವಾಯಿದೆ ವರೆ
ಗಿನ ಕೈದು ಶಿಕ್ಷೆಗೆ ಗುರಿಯಾಗುತ್ತಾನೆ. ಯಾವ ರೈಲ್ವೆ ನೌಕ
ರನಾಗಲೀ ತನ್ನ ಕೆಲಸವನ್ನು ನಿರ್ವಹಿಸುತ್ತಿರುವಾಗ ಯಾವ
ನೊಬ್ಬ ಮನುಷ್ಯನ ಭದ್ರತೆಗೆ ಅಪಾಯ ಉಂಟುಮಾಡಿದರೆ -
ಆ ನೌಕರನು ಮೂರುಸಂವತ್ಸರಗಳ ವಾಯಿದೆ ವರೆಗಿನ ಕೈದು

Malayalam.

സംഘം വെക്കുന്ന എല്ലാ പുസ്തകങ്ങളുടെയും ഒരു ലിസ്റ്റു
എല്ലാ പരിശോധനക്കാരന്നും കൊടുക്കേണ്ടതും സംഘംവക
പുസ്തകങ്ങളും കണക്കുകളും എല്ലാ പരിശോധനക്കാരനും
എല്ലാ ന്യായമായ സമയത്തും ചെന്നു നോക്കാവുന്നതും ആ
കുന്നു. ശോധനചെയ്യുന്നതിൽ തനിക്കു സഹായിപ്പാനായിട്ടു
സംഘത്തിന്റെ ചിലവിന്മേൽ ആയാൾ ആവക കണക്കു
കണക്കുകാരെയൊ മററൊ നിശ്ചയിക്കുകയും ആ കണക്കു
കളെപററി ആയാൾ സംഘത്തിലെ വിചാരിപ്പുകാരോടൊ
മററു വല്ല ഉദ്യോഗസ്ഥന്മാരോടൊ ചോദ്യംചെയ്കയും ചെയ്യാം.
ബാക്കിപത്രത്തെയും കണക്കുകളെയും പററി കണക്കു പരി
ശോധനക്കാർ അംഗങ്ങൾക്കു ഒരു റിപ്പോർട്ടു ചെയ്കയും ഠരം
ചട്ടങ്ങളാൽ ആവശ്യപ്പെട്ടിരിക്കുന്ന വിവരങ്ങൾ അടങ്ങി

Hindostany.

معلوم هو كہ شہر مدراس كے ميونيسپل كميشنرس مبلغ
روپئى كے واسطے جو تمہارى منجانب بطور مالك يا متصرف
بابت جائداد فلان (يہان اس جائداد يا شئى كا ذكر
كيا چاهئے كہ جسپر تيروا يا محصول مقرر كيا گيا هى) سنہ
١٨ع كے لئے بائدداد هين تمہارے سے اگر زر واجب الدين
معہ جو اس نوٹيس كا خرچ هى مذكور كميشنرس كى
آفيس مين تك نہ ديا جاوے يا يہہ نوٹيس پہنچى بعد
سات روز كے اندر زر مذكور نہ دينے كا كافى سبب كميشنر
كو معلوم نہ كرايا جاوے تو اس مبلغ كو معہ اخراجات
وصول كرنے كے لئے قرقى كى وارنٹ جارى كئى جاويگى
(يہان ميونيسپل كميشنرس كے پريسيڈنٹ كى دستخط يا
مہر ثبت كيا چاهئے) قرقى كى وارنٹ بنام مورخہ ئل ٹس

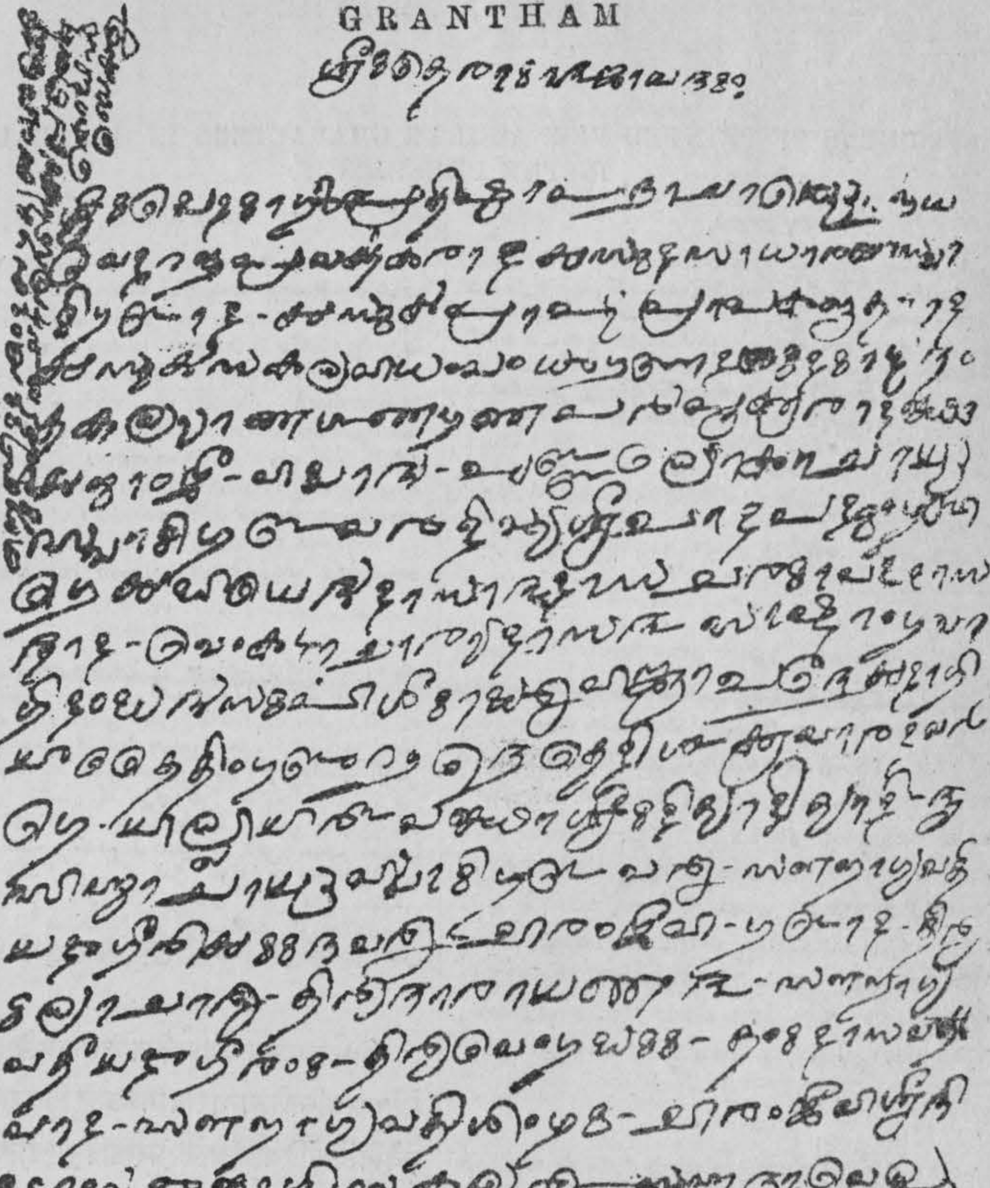
Devanagary.

निर्गतायाञ्च केयूरकेण सह पत्रलेखायांकिंशीघ्र
मेतेयास्यन्तिनेत्यन्तरावागच्छतां विलम्ब उत्पत्स्यते
नवेतिकियद्भिर्वादिवसैः परापतिष्यन्तीत्यनयैव चिंत
याशून्यहृदयः क्षणमिव स्थित्वा स्कन्धावारवार्तास्फु
टीकरणाय वार्ताहरंविसर्ज्य, बहुदिवसान्तरितदर्श
नस्य वैशम्पायनस्य प्रत्युद्गमनायात्मानं मोचयितुं
पितुः पादमूलमगात् । तत्र चोभयतः ससम्भ्र
मापसृतप्रतिहारमण्डलवितीर्णविस्तीर्णालोकनमार्गोदू-
रादेवापसव्यजानुकरतलावलम्बित विमलमणिकुट्टि
मोदर संक्रांतप्रातेमाद्विगुणायमानायतकुन्तलकलाप

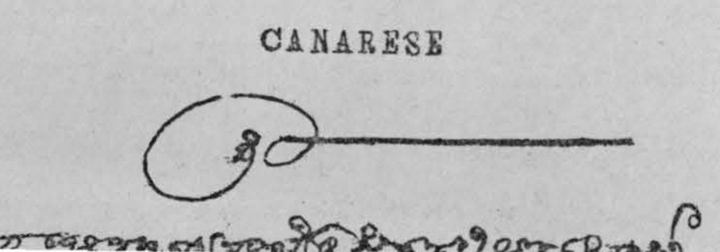
APPENDIX No. XIX.

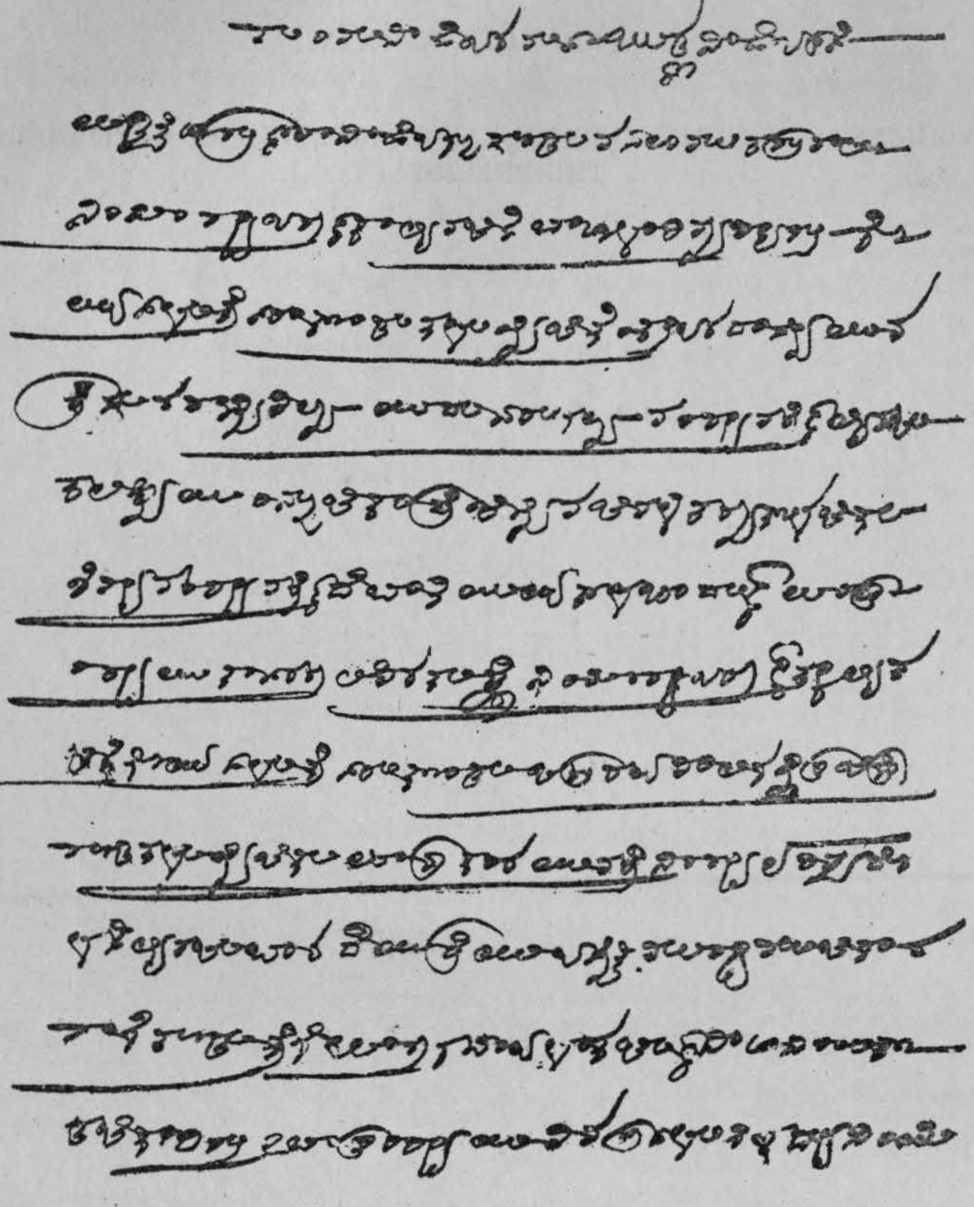
SPECIMENS OF WRITTEN VERNACULAR CHARACTERS IN GENERAL USE IN THE PRESIDENCY.

GRANTHAM

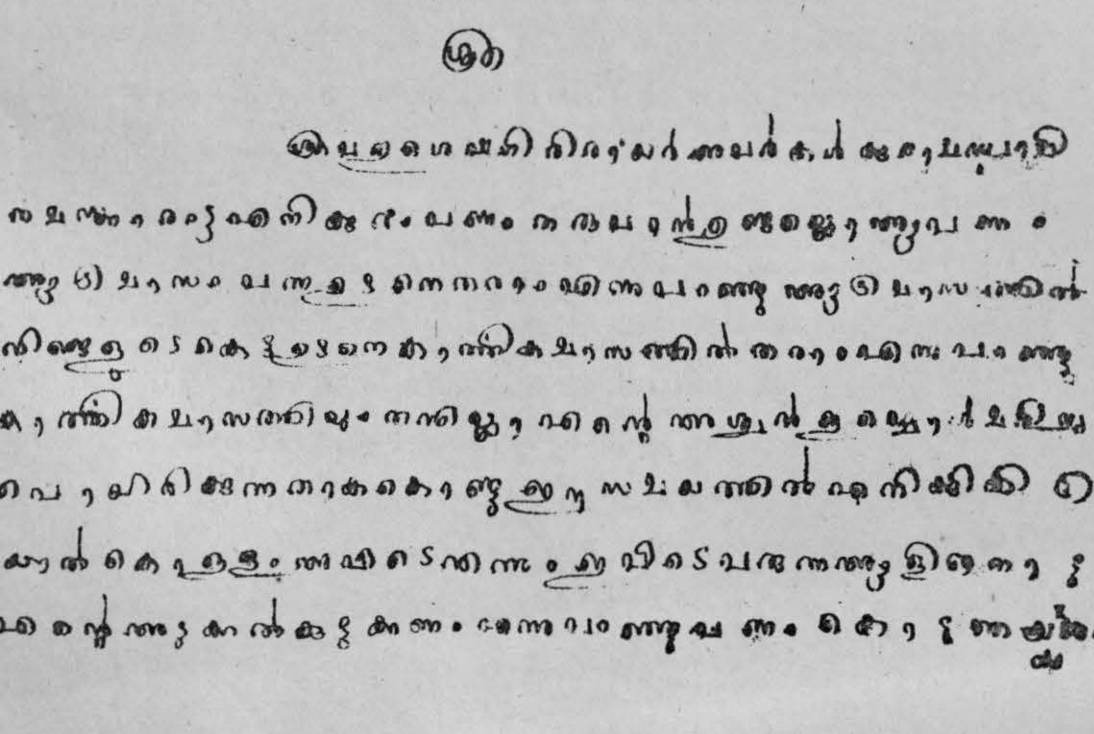


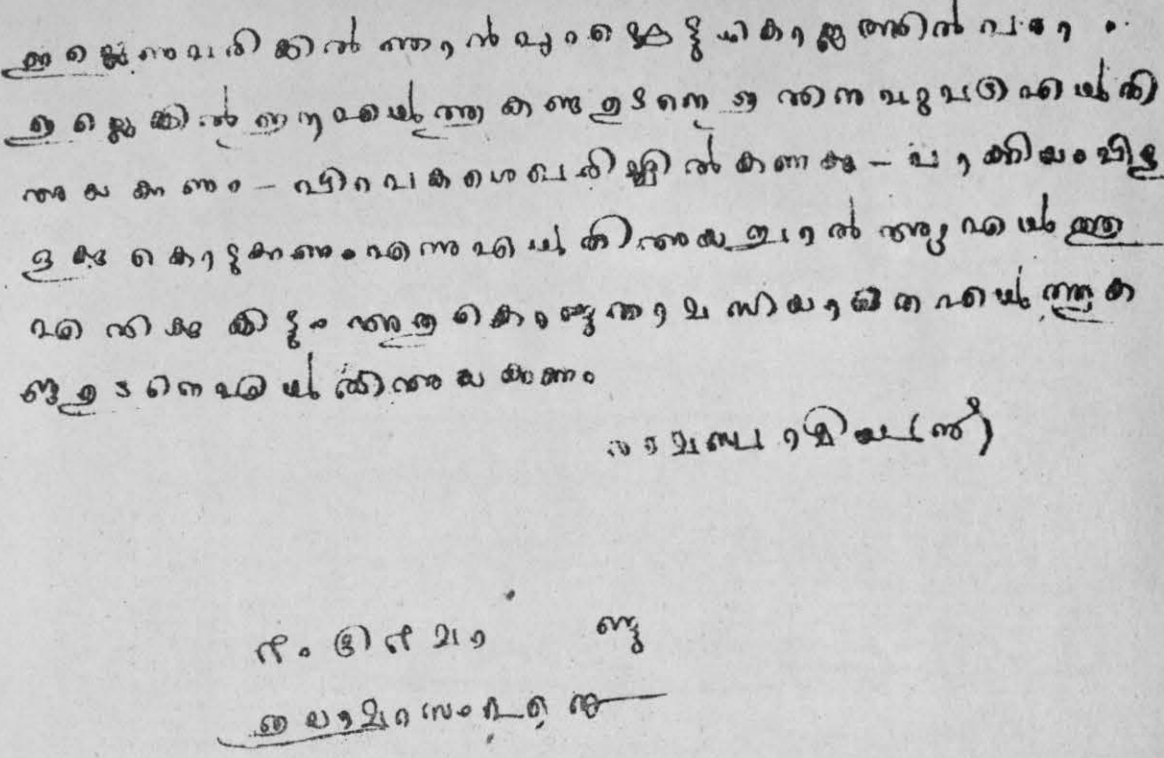
CANARESE



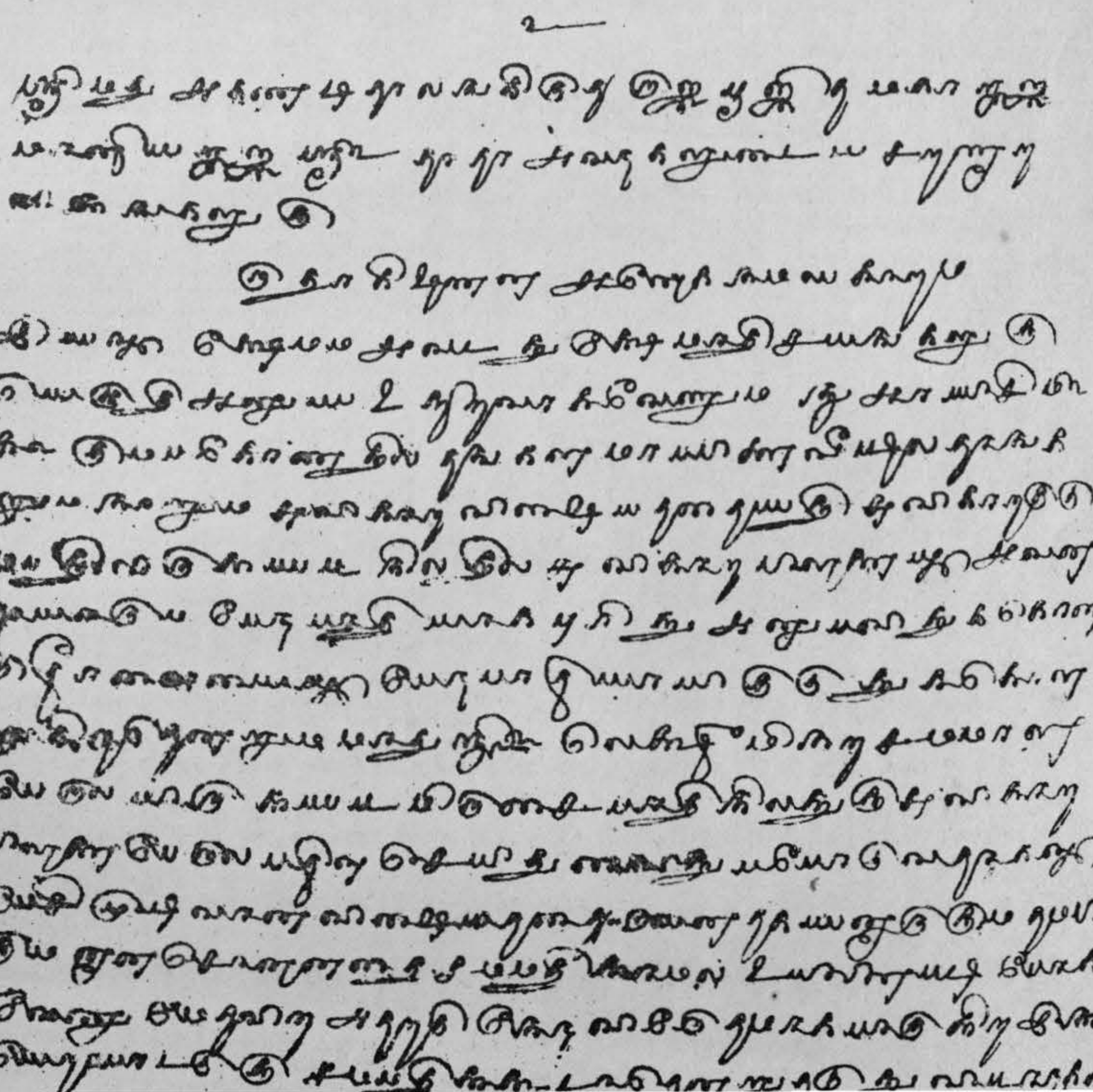


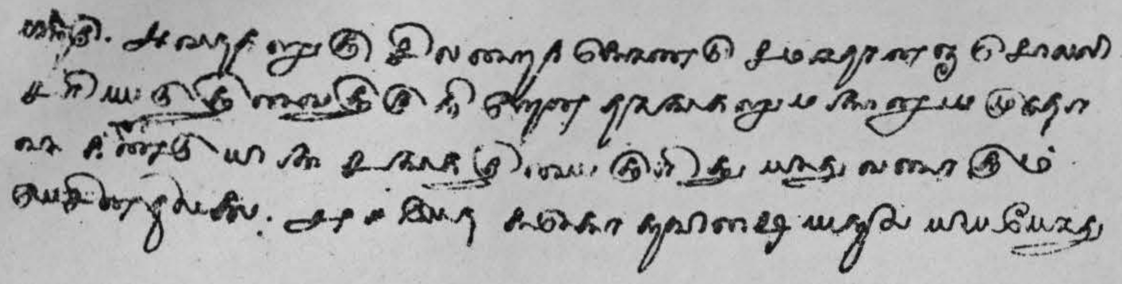
MALAYALAM



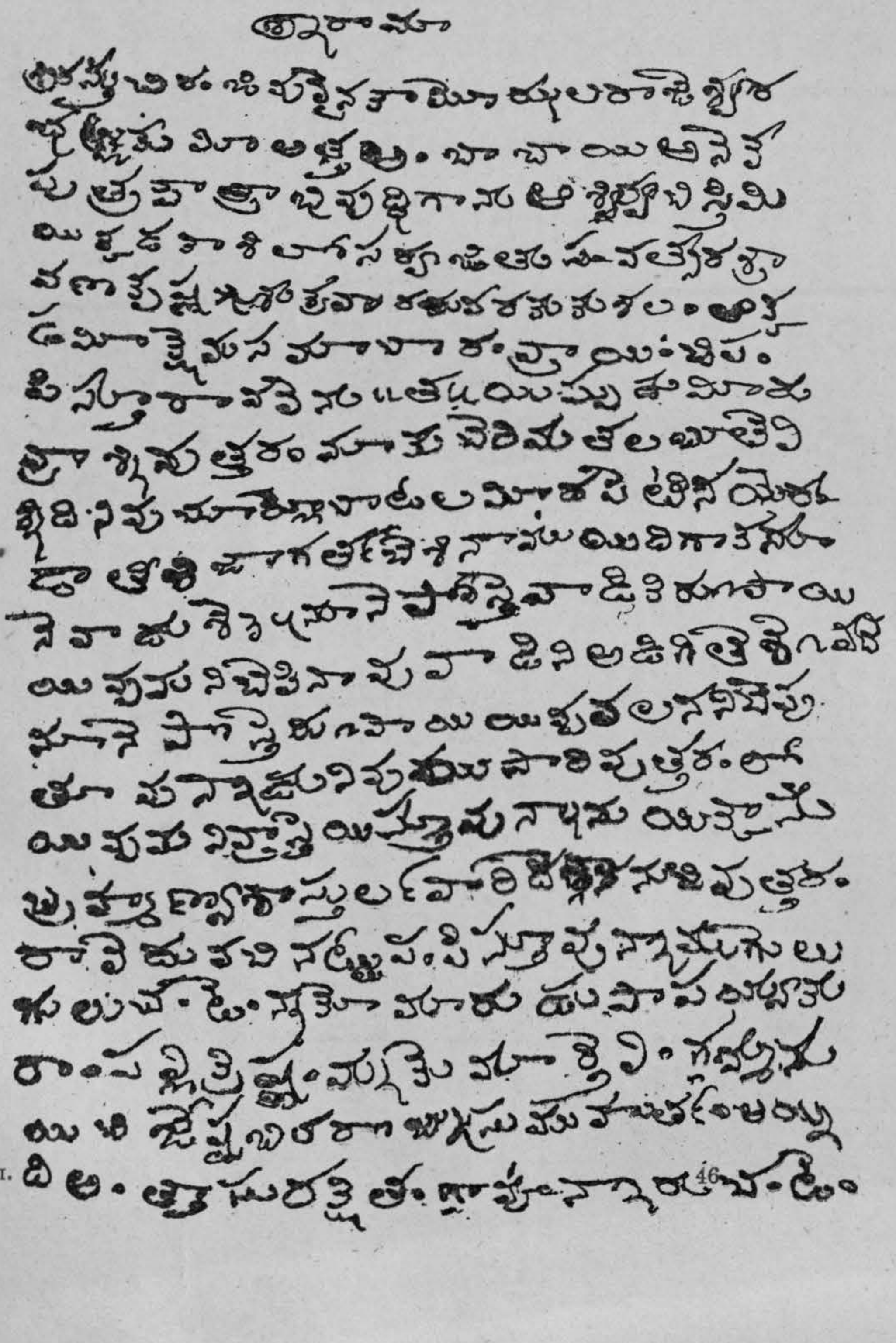


TAMIL

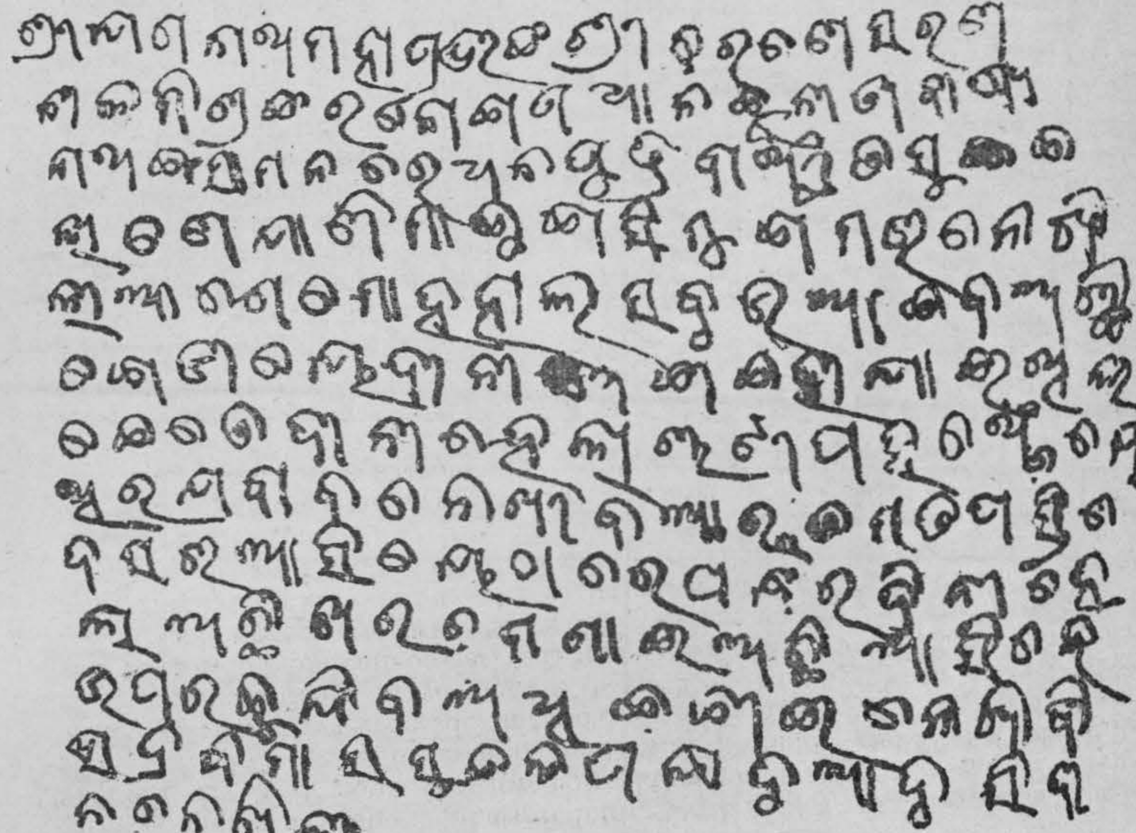




TELOOGOO



OORIYAH



APPENDIX No. XX.

STATISTICS OF THE LANGUAGES OF SOUTHERN INDIA.

(a) *Number of Persons speaking Dravidian Languages.*

Language.	Dialect.	Total persons speaking.	Language.	Dialect.	Total persons speaking.
Tamul ...	......	12,387,395	Malayalam.	......	2,369,671
	Coorumba	3,843			
	Iroola	287			
	Yerkala	21,992	Tooloo ...	......	427,044
	Total ...	12,413,517			
			Kooi ...	......	205,045
Teloogoo ...	......	12,104,246			
	Yanaudy	148			
	Chentsoo	70	Gond ...	......	8,000
	Total ...	12,104,464		Gayety	87
Canarese ...	......	1,300,555			
	Badagah	1,019			
	Kotah	1,062		Total ...	8,087
	Todah	673			
	Coorg	36			
	Total ...	1,303,345	Total of persons speaking Dravidian languages.		28,831,173

(b) *Number of Persons speaking other Languages.*

Family.	Language.	Dialect.	Total persons speaking.	Family.	Language.	Dialect.	Total persons speaking.
	Mahratty ...	......	82,299	Iranic.	Pooshtoo ...	......	82
		Concany	147,707				
		Lumbaudy	21,967		Persian ...	......	1,811
		Lada	84				
					Arabic ...	......	740
		Total ...	252,057				
					Beloochee...	......	67
	Ooriyah ...	......	1,128,560				
	Hindee ...	......	2,696			Total Iranic Family ...	2,700
		Hindostany (Dekhany).	696,103				
		Marwaree	298	Kolarian.	Sowrah ...	......	132,931
		Total ...	699,097		Gadaba ...	......	12,006
	Punjaubee.	......	13			Total Kolarian Family.	144,937
Indic.	Nepaulese...	......	293				
	Sindhee ...	......	37	Tibeto-Burman.	Newaree ...	......	1
		Cutchee	366				
		Total ...	403		Burmese ...	......	238
	Singhalese.	......	38		Chinese ...	......	40
	Goozeratty.	......	6,644			Total Tibeto-Burman Family ...	279
		Putnool	61,736				
		Total ...	68,380	Tei ...	Siamese ...	......	2
	Bengalee ...	......	305	Semitic.	Hebrew ...	......	23
	Cashmeere.	......	4		Syriac ...	......	2
	Sanscrit ...	......	1,321				
		Total Indic Family ...	2,150,471			Total Semitic Family.	25

(b) *Number of Persons speaking other Languages*—(Continued).

Family.	Language.	Dialect.	Total persons speaking.	Family.	Language.	Dialect.	Total persons speaking.
Malayan.	Malay ...	......	1	Others —*Cont.*	Italian ...	......	33
Others	Abyssinian.	......	1		Japanese ...	......	1
	African ...	......	2		Latin ...	......	1
	Armenian...	......	50		Norwegian.	......	34
	Celtic ...	......	2		Portuguese.	......	3,491
	Danish ...	......	23		Russian ...	......	6
	Dutch ...	......	31		Slavonic ...	......	1
	English ...	......	35,816		Scotch ...	......	40
	Flemish ..	......	1		Spanish ...	......	4
	French ...	......	618		Swedish ...	......	19
	Finnish ...	......	1		Turkish ...	......	12
	Gaelic ...	......	3		Welsh ...	......	22
	German ...	......	296			Total Others ...	40,549
	Greek ...	......	6				
	Hungarian.	......	1	Total of persons not speaking Dravidian languages			2,338,964
	Irish ...	......	34				

(c) *Proportion to Population for different Languages.*

Family.	Languages.	Number of persons speaking each.	Proportion in every 10,000 of the population.
Dravidian ...	Tamul	12,387,395	3,974
	Teloogoo	12,104,246	3,883
	Malayalam	2,369,671	760
	Canarese	1,300,555	417
	Tooloo	427,044	137
	Other languages and dialects ...	242,192	78
Indic	Ooriyah	1,128,560	362
	Hindostany	696,103	223
	Mahratty (including Concany) ...	230,006	74
	Other languages and dialects	73,751	24
	Kolarian	144,937	47
	English	35,816	11
	Other tongues including "Not recognizable"	8,234	3

(d) *Districts in which the several Dravidian Minor Dialects are spoken.*

Districts.	Badagah.	Chentsoo.	Gayety.	Iroola.	Codagoo.	Koter.	Coorumba.	Todah.	Yanaudy.	Yerkala.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Arcot, North	...	...	...	...	...	...	...	...	...	352
Arcot, South	...	...	...	...	...	...	...	...	...	...
Bellary	...	...	...	...	...	...	7	...	...	1,513
Canara, South	...	...	...	...	32	...	...	...	...	...
Chingleput	...	...	...	...	...	...	...	...	...	...
Coimbatore	...	...	...	241	...	...	2	4	...	...
Cuddapah	...	...	...	11	...	...	2	...	28	6,224
Ganjam	...	...	...	...	...	...	...	...	...	243
Godavery	...	70	...	...	...	...	...	...	...	1,233
Kistna	...	...	...	...	...	...	...	...	11	5,917
Kurnool	...	...	87	...	...	...	...	...	44	4,224
Madras City	...	...	...	...	2	...	...	...	...	...
Malabar	...	...	...	...	2	...	...	...	...	...
Neilgherries	1,019	...	...	35	...	1,062	152	669	...	...
Nellore	...	...	...	...	...	...	...	...	60	1,600
Poodoocottah Territory	...	...	...	...	...	...	3,601	...	...	...
Salem	...	...	...	...	...	...	...	...	...	...
Tanjore	...	...	...	...	...	...	36	...	...	...
Tinnevelly	...	...	...	...	...	...	...	...	...	...
Trichinopoly	...	...	...	...	...	...	43	...	...	...
Vizagapatam	...	...	...	...	...	...	...	...	5	686
Grand Total ...	1,019	70	87	287	36	1,062	3,843	673	148	21,992

APPENDIX No. XXI.

ANALYSIS OF TRADITIONAL ENGLISH SPELLING OF SOUTH INDIAN VERNACULAR WORDS.

(i.)—*Transliteration of vowels and diphthongs.*

Letters in the original word.						Approximate sound of the letters.	Transliteration as observed from analysis.	Examples.
Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.			
1	2	3	4	5	6	7	8	9
அ	అ	ಅ	അ	–	अ	As the *u* in "but," or the *a* in "about."	*u*, or (especially when there is no stress on the syllable) *a*.	Pulneys—Adony.
ஆ	ఆ	ಆ	ആ	ا	आ	As the interjection *ah*, or (somewhat modified) as the *au* in "fraud."	*a*, or *au*, or *ah*, or *aa*.	Ravana—Ghaut—Ahtoor—Salaam.
இ	ఇ	ಇ	ഇ	اِ	इ	As the *i* in "pin," or the *y* in "truly."	*i*, or (when final) *y*.	Trichinopoly.
ஈ	ఈ	ಈ	ഈ	اِی	ई	As the *ee* in "meet" ...	*ee*.	Arnee.
உ	ఉ	ಉ	ഉ	اُ	उ	As the *oo* in "good" ...	*oo*.	Booddha.
ஊ	ఊ	ಊ	ഊ	–	ऊ	As the *oo* in "moon" ...	*oo*.	Loodiana.
எ	ఎ	ಎ	എ	اے	—	As the *e* in "mendicant."	*e*.	Peshcush.
ஏ	ఏ	ಏ	ഏ	–	ए	As the *ey* in "grey," or *ai* in main.	*ey*, or *ai*.	Beypore—Houssain.
ஐ	ఐ	ಐ	ഐ	اَی	ऐ	As the *ei* in "height," or *y* in "lying," or *ui* in "guide;" or when occurring as a non-monosyllabic final, as the *ay* in "pay."	When not final *ei*, or *y*, or *ui*; when final *ay*.	Veishnava—Hyderabad—Guicowar—Anamullay.
ஆய்	ఆయి	ಆಯಿ	ആയി	–	आय्	As the words "ah, ye" (not an English diphthong).	*ye*, or *oye*.	Toolsee Bye—Abboye.
ஒ	ఒ	ಒ	ഒ	او	—	As the *o* in "police" ...	*o*.	Potail.
ஓ	ఓ	ಓ	ഓ	–	ओ	As the *o* in "prose" ...	*o*.	Dhony.
ஔ	ఔ	ಔ	ഔ	اَو	औ	As the *ow* in "down," or *ou* in "foul."	*ow*, or rarely *ou*.	Sowrah—Oudh.

(ii.)—*Pronunciation of the Roman characters when so written, being the converse of columns 7 and 8 of the last table.*

Letter occurring.	Pronunciation to be used.	Pronunciation to be avoided.
a	As in "about."	Not as in "mat," which is not an Oriental sound.
aa	As the interjection "ah."	
ah	As the interjection "ah."	
au	As the interjection "ah."	Not as *ow* in "cow;" here the English spelling is opposed to the Continental.
ai	As *ai* in "main."	Not as *ei* in "height;" here the English spelling is opposed to the Continental.
ay	As *ay* in "pay."	
e	As in "mendicant."	
ee	As *ee* in "meet."	
ey	As *ey* in "grey."	Not as *ey* in "eye."
ei	As *ei* in "height."	
i	As *i* in "pin."	
o	As *o* in "police;" sometimes as *o* in "prose."	
oo	As *oo* in "good;" sometimes as *oo* in "moon."	
ou	As *ou* in "foul" (rare).	
ow	As *ow* in "down."	
oye	As the words "ah, ye."	
u	As *u* in "but."	Not as *oo* in "good;" here the English spelling is opposed to the Continental.
ui	As *ui* in "guide."	
y	When final as *y* in truly, when not final as *y* in lying.	
ye	See oye.	

(iii.)—*Note on the two preceding tables.*

The use of the vowels is the distinguishing mark of a transliterative system. It appears that the English system transliterates with 20 vowel symbols, all un-accented. Of these three, or *a*, *o*, and *oo*, are ambiguous in expressing the short and long vowels. *A* is however only occasionally used in this sense. As to *o* and *oo*, the difficulty is to a certain extent met by a judicious use of the consonants in context, which to an Englishman accustomed to the analogy of the English language is usually sufficient to indicate the quantity. There is no other ambiguity in the system.

(iv.)—*Transliteration of consonants.*

For convenience of explanation, this may be considered by taking Appendix XXIV as a standard; and working backwards from it, indicating variations. The consonant transliteration of Appendix XXIV may be considered to be followed, with the following deductions and alterations. There are no diacritical marks, and there is no apostrophe for aspirates. Aspirated letters are usually written as un-aspirated letters. Double letters (especially in Tamul) are frequently written as single letters. 'C' takes the place of 'k,' where it is usual to use 'c' in English. ச = 'ch,' or when strengthened 'tch.' ன்ற = ndr. 'Sh' stands for 'ś.' ஞ = gn. K stands for q. W is frequent for v.

(v.)—*Variations from the transliterative principle.*

The Tamul language does not lend itself to real transliteration, and the frequent variations which are necessary even for pure Tamul words may be gathered from Appendix XXIII and a study of the analysis in Appendix XXVII. க, த, ப, ச, ட, and ற are necessarily treated on phonetic principles. In the case of words derived by Tamul directly from the Sanscrit it is the practice to transliterate as if the word was written in the original Sanscrit, or approximately so. These remarks apply almost in the same degree to the Malayalam language, which however has not been separately analyzed. The final soft உ of Tamul is cut off in English. In Teloogoo చ = 'ts,' and జ = dz, when the grammar prescribes that pronunciation. எ, ஏ initial = ye, yé. இ, ஈ initial and before cerebral or palatal consonants = yi, yí. ஒ, ஓ initial and before cerebral or palatal consonants = wo, wó. Similarly as to these initial vowels for all Dravidian languages. However as the sounds are radically inherent in those languages, and as they are very generally so represented in the vernacular, these might almost be classed as transliterations. The direct phonetic principle for entire syllables and words also frequently stands in the place of the transliterative. Thus the following terminations are common in names of places:—cottah = கோட்டை; cote = కోట; cherry = சேரி; ore (when not in an iambus) = ஊர்; gherry = గిరి; nugger = நகரம்; putty = பட்டி; nuddy = నది; aur = ஆறு (river); cull = கல்; pollem = பாளையம்; &c. Many of the devices last-named represent very accurately the surd and peculiar sounds of the Dravidian languages.

APPENDIX No. XXII.

ANALYSIS OF CONTINENTAL TRANSLITERATION OF SOUTH INDIAN VERNACULAR WORDS IN ITS MOST SIMPLE FORM.

(i.)—*Transliteration of vowels and diphthongs.*

Letters in the original word.						Approximate sound of the letters.	Trans-literation.	Examples.
Tamul.	Teloogoo.	Cana-rese.	Mala-yalam.	Hindos-tany.	Sanscrit.			
1	2	3	4	5	6	7	8	9
அ	అ	ಅ	അ	–	अ	As the *u* in "but," or the *a* in "about."	*a*	Dharmapuri.
ஆ	ఆ	ಆ	ആ	ا	आ	As the interjection *ah*, or (somewhat modified) as the *au* in "fraud."	*á*	Ghát.
இ	ఇ	ಇ	ഇ	ي	इ	As the *i* in "pin," or the *y* in "truly."	*i*	Kótagiri.
ஈ	ఈ	ಈ	ഈ	ي	ई	As the *ee* in "meet" ...	*í*	Srírangam.
உ	ఉ	ಉ	ഉ	ر	उ	As the *oo* in "good" ...	*u*	Guru.
ஊ	ఊ	ಊ	ഊ	–	ऊ	As the *oo* in "moon" ...	*ú*	Maisúr.
எ	ఎ	ಎ	എ	ي	—	As the *e* in "mendicant"...	*e*	Meria.
ஏ	ఏ	ಏ	ഏ	–	ए	As the *ey* in "grey," or *ai* in "main."	*é*	Kávéri.
ஐ	ఐ	ಐ	ഐ	اَي	ऐ	As the *ei* in "height," or *y* in "lying," or *ui* in "guide;" or when occurring as a non-monosyllabic final, as the *ay* in "pay."	*ai*	Haidar.
ஆய்	ఆయి	ಆಯಿ	ആയി	–	आय्	As the words "ah, ye" (not an English diphthong).	*ái*	Áin.
ஒ	ఒ	ಒ	ഒ	او	—	As the *o* in "police" ...	*o*	Ponakkád.
ஓ	ఓ	ಓ	ഓ	–	ओ	As the *o* in "prose" ...	*ó*	Kóvalam.
ஔ	ఔ	ಔ	ഔ	اَو	औ	As the *ow* in "down," or *ou* in "foul."	*au*	Saura.

(ii.)—*Pronunciation of the Roman characters when so written, being the converse of columns 7 and 8 of the last table.*

Letter occurring.	Pronunciation to be used.	Pronunciation to be avoided.
a	As in "about."	Not as in "mat," which is not an Oriental sound.
á	As *a* the interjection "ah."	
au	As the *ow* in "cow."	Not as *au* in "fraud;" here the Continental spelling is opposed to the English.
ai	As the *ei* in "height."	Not as *ai* in "main;" here the Continental spelling is opposed to the English.
ái	As the words "ah, ye."	
e	As in "mendicant."	
é	As *ey* in "grey."	
i	As *i* in "pin."	
í	As the *ee* in "meet"	
o	As *o* in "police."	
ó	As *o* in "prose."	
u	As *oo* in "good."	Not as *u* in "but;" here the Continental spelling is opposed to the English.
ú	As *oo* in "moon."	

(iii.)—*Note on the two preceding tables.*

As in Appendix XXI the vowels are the principal consideration. It appears that the continental system transliterates with 13 vowel symbols, of which 6 are accented. The use of the accents is sometimes dispensed with. The system however then becomes on a par with the English system in point of accuracy, while much inferior to it phonetically. The system cannot be efficiently employed without the accents. There is no ambiguity among any of these vowel symbols when accented. As regards the transliteration *ai*, it must be remarked that this does violence to the real nature of the sound in the Dravidian languages, which is not a compound of *a* and *i* as in the Sanscritic languages, but a sound such as is indicated in column 7 of the first table.

(iv.)—*Transliteration of consonants.*

The consonant transliteration of Appendix XXIV may be considered to be followed with the following deductions and alterations. Diacritical marks are for the most part omitted excepting the acute accent. The apostrophe before the aspirate is usually not retained. Sh stands for ś. K stands for q.

(v.)—*Variations from the transliterative principle.*

The Tamul language does not lend itself to real transliteration, and the frequent variations which are necessary even for pure Tamul words may be gathered from the next Appendix and from a study of the analysis in Appendix XXVII. க, த, ப, ச, ட and ற are necessarily treated on phonetic principles. In the case of words derived by Tamul directly from the Sanscrit the practice is sometimes to transliterate as if the word was written in the original Sanscrit, but there is no definite rule on the subject. The same remarks apply almost in the same degree to Malayalam. In most of the ordinary schemes under this style చ = ts, and జ = dz, when Teloogoo grammar prescribes that pronunciation.

APPENDIX No. XXIII.

SIMPLE TRANSLITERATION TABLE FRAMED ACCORDING TO APPENDIX XXII.

This table is applied wherever the new style is employed in the present work, and when greater accuracy is required a point is added below cerebral consonants.

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent.
அ	అ	ಅ	അ	ا ا	अ	a
ஆ	ఆ	ಆ	ആ	ا آ	आ	á
இ	ఇ	ಇ	ഇ	اِ	इ	i
ஈ	ఈ	ಈ	ഈ	يِ يِ	ई	í
உ	ఉ	ಉ	ഉ	اُ	उ	u
ஊ	ఊ	ಊ	ഊ	اُو وُ	ऊ	ú
—	ఋ	ಋ	ഋ	—	ऋ	ri
எ	ఎ	ಎ	എ	يِ يِ	—	e
ஏ	ఏ	ಏ	ഏ	—	ए	é
ஐ	ఐ	ಐ	ഐ	اَي	ऐ	ai
ஒ	ఒ	ಒ	ഒ	او و	—	o
ஓ	ఓ	ಓ	ഓ	—	ओ	ó
ஔ	ఔ	ಔ	ഔ	اَو	औ	au
—	ః	ಃ	ഃ	—	अः	h
—	ం	ಂ	ം	—	अं	m or n
க[1]	క	ಕ	ക	ک ک ک	क	k
—	ఖ	ಖ	ഖ	کھ	ख	kh; when double kkh.
க[2][11]	గ	ಗ	ഗ	گ گ گ	ग	g
—	ఘ	ಘ	ഘ	گھ	घ	gh; when double ggh.
ங	ఙ	ಙ	ങ	—	ङ	n
ச[6]	చ[12]	ಚ	ച	چ چ چ	च	ch; when double çç.
—	ఛ	ಛ	ഛ	چھ	छ	chh; when double çch.
ச[7], ஜ	జ[13]	ಜ	ജ	ج ج ج	ज	j
—	ఝ	ಝ	ഝ	جھ	झ	jh; when double jjh.
ஞ	ఞ	ಞ	ഞ	—	ञ	ñ

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent.
ட[8]	ట	ಟ	ട	ٹ ٹ ٹ	ट	t
—	ఠ	ಠ	ഠ	ٹھ	ठ	t'h; when double tt'h.
ட[9]	డ	ಡ	ഡ	ڈ ڈ	ड	d
—	ఢ	ಢ	ഢ	ڈھ	ढ	dh; when double ddh.
ண	ణ	ಣ	ണ	—	ण	n
த[1]	త	ತ	ത	ت ت ت	त	t
—	థ	ಥ	ഥ	تھ	थ	t'h; when double tt'h.
த[2][11]	ద	ದ	ദ	د د	द	d
த[3]	—	—	—	—	—	th
—	ధ	ಧ	ധ	دھ	ध	dh; when double ddh.
ந	న	ನ	ന	ن ن	न	n
ப[1]	ప	ಪ	പ	پ پ پ	प	p
—	ఫ	ಫ	ഫ	پھ	फ	ph; when double pph.
ப[2][11]	బ	ಬ	ബ	ب ب ب	ब	b
—	భ	ಭ	ഭ	بھ	भ	bh; when double bbh.
ம	మ	ಮ	മ	م م م	म	m
ச[4], ஶ	శ	ಶ	ശ	س س	श	sh
ஷ	ష	ಷ	ഷ	ش ش ش	ष	sh
ச[5], ஸ	స	ಸ	സ	س س س	स	s
ஹ	హ	ಹ	ഹ	ہ ھ ه	ह	h
ய	య	ಯ	യ	ي ي ي	य	y
ர	ర	ರ	ര	ر ر	र	r
ல	ల	ಲ	ല	ل ا ا	ल	l
வ	వ	ವ	വ	و و	व	v
க்ஷ	క్ష	ಕ್ಷ	ക്ഷ	—	क्ष	ksh

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent.	Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent.
—	ఁ	—	—	ں ن		n					ث ـثـ ثـ		s
ள	ళ	ಳ	ള	—	ळ	l					ص ـصـ صـ		s
ற[10]	ఱ	ಱ	റ	ڑ ڑ		r					ط ط		t
ழ	—	—	ഴ	—		zh					ز ز		z
ன	—	—	—	—		n					ض ـضـ ضـ		z
—	—	—	—	ف ـفـ فـ		f					ظ ظ		z
—	—	—	—	ق ـقـ قـ		k					ذ ذ		z
				ح ـحـ حـ		h							
				خ ـخـ خـ		kh							

Notes for pure Tamul words.—[1] க, த, ப are transliterated in this way by k, t, p when initial, or when double. [2] க, த, ப are transliterated in this way by g, d, b when not initial, and when not double. [3] த is transliterated in this way by th when not initial, and when between two vowels. [4] ச is transliterated in this way by sh when initial. [5] ச is transliterated in this way by s when not initial, and not following ட or ற, or ஞ, and not double. [6] ச is transliterated in this way by ch when following ட or ற, or when double. [7] ச is transliterated in this way by j when following ஞ. [8] ட is transliterated in this way by t when double. [9] ட is transliterated in this way by d when single. [10] றற = tt. *Note for words borrowed by Tamul direct from Sanscrit and the Pracrits.*—[11] க, த, ப, when initial, may on occasion stand for these sounds g, d, b, and can then be transliterated accordingly; but the sounds in this position are entirely foreign to the bulk of the Tamul-speaking population. *Notes for pure Teloogoo words.*—[12] చ is transliterated by ts when followed by the vowels a, á, u, ú, o, ó, or au. [13] జ is transliterated by dz when followed by the vowels a, á, u, ú, o, ó, or au.

APPENDIX No. XXIV.

A COMPLETE THEORETICAL SCHEME OF ROMAN SPELLING FOR THE ALPHABETS OF THE PRINCIPAL LANGUAGES USED IN THE PRESIDENCY, BORROWING THE CONTINENTAL POWERS OF VOWELS, AND USING DIACRITICAL MARKS FOR CONSONANTS.

This scheme provides for the representation of every Oriental letter employed in Southern India by approximately a single distinct Roman letter in every case ; and where required by adding a single diacritical sign in every case. The diacritical signs are : (a) *the acute accent over long vowels,* (b) *the apostrophe with h for aspirated consonants,* (c) *a point below the letter for cerebral consonants,* (d) *the acute accent over palatal consonants,* (e) *a point above the line for anomalous signs, excepting ñ,* (f) *a line below the letter when other signs are exhausted. From this scheme extracts and modifications can be taken for different purposes.*

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent under this scheme.
அ	అ	ಅ	അ	ا ا	अ	a
ஆ	ఆ	ಆ	ആ	ا آ	आ	á
இ	ఇ	ಇ	ഇ	اِ	इ	i
ஈ	ఈ	ಈ	ഈ	اِی ـیـ ـی	ई	
உ	ఉ	ಉ	ഉ	اُ	उ	u
ஊ	ఊ	ಊ	ഊ	اُو وُ	ऊ	ú
—	ఋ	ಋ	ഋ	—	ऋ	ri̲
—	ౠ	ೠ	ൠ	—	ॠ	rí̲
—	—	—	—	—	ऌ	lri̲
—	—	—	—	—	ॡ	lrí̲
எ	ఎ	ಎ	എ	ی ـیـ ـی	—	e
ஏ	ఏ	ಏ	ഏ	—	ए	é
ஐ	ఐ	ಐ	ഐ	اَی	ऐ	ai
ஒ	ఒ	ಒ	ഒ	او و	—	o
ஓ	ఓ	ಓ	ഓ	—	ओ	ó
ஔ	ఔ	ಔ	ഔ	اَو	औ	au
—	ః	ಃ	ഃ	—	अः	'h
—	ం	ಂ	ം	—	अं	m or n
க	క	ಕ	ക	ک ک ک	क	k
க	ఖ	ಖ	ഖ	کھ	ख	k'h ; when double kk'h.
க	గ	ಗ	ഗ	گ گ گ	ग	g
க	ఘ	ಘ	ഘ	گھ	घ	g'h ; when double gg'h.
ங	ఙ	ಙ	ങ	—	ङ	n̲

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent under this scheme.
ச	చ	ಚ	ച	چ ﭼ ﭽ	च	ch ; when double çç.
ச	ఛ	ಛ	ഛ	چھ	छ	ch'h ; when double çch.
ச or ஜ	జ	ಜ	ജ	ج ﺟ ﺠ	ज	j
ச	ఝ	ಝ	ഝ	جھ	झ	j'h ; when double jj'h.
ஞ	ఞ	ಞ	ഞ	—	ञ	ñ
ட	ట	ಟ	ട	ٹ ٹ ٹ	ट	ṭ
ட	ఠ	ಠ	ഠ	ٹھ	ठ	ṭ'h ; when double ṭṭ'h.
ட	డ	ಡ	ഡ	ڈ ڈ	ड	ḍ
ட	ఢ	ಢ	ഢ	ڈھ	ढ	ḍ'h ; when double ḍḍ'h.
ண	ణ	ಣ	ണ	—	ण	ṇ
த	త	ತ	ത	ت ت ت	त	t
த	థ	ಥ	ഥ	تھ	थ	t'h ; when double tt'h.
த	ద	ದ	ദ	د د	द	d ; when between two vowels in Tamul, th.
த	ధ	ಧ	ധ	دھ	ध	d'h ; when double dd'h.
ந	న-ౝ	ನ	ന	ن ن	न	n
ப	ప	ಪ	പ	پ پ پ	प	p
ப	ఫ	ಫ	ഫ	پھ پھ	फ	p'h; when double pp'h.
ப	బ	ಬ	ബ	ب ب ب	ब	b
ப	భ	ಭ	ഭ	بھ	भ	b'h ; when double bb'h.
ம	మ	ಮ	മ	م م م	म	m
ச or ஶ	శ	ಶ	ശ	س س	श	ś

Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent under this scheme.	Tamul.	Teloogoo.	Canarese.	Malayalam.	Hindostany.	Sanscrit.	Roman Equivalent under this scheme.
ஷ	ష	ಷ	ഷ	ش ش ش	ष	sh					خ خ خ		kh
ச-ஸ	స	ಸ	സ	س س س	स	s					ث ث ث		ṡ
ஹ	హ	ಹ	ഹ	ه ه ه	ह	h					ص ص ص		ṣ
ய	య	ಯ	യ	ي ي ي	य	y					ط ط		ṭ
ர	ర	ರ	ര	ر ر	र	r					ز ز		z
ல	ల	ಲ	ല	ل ل ا	ल	l					ع ع ع		ʻ
வ	వ	ವ	വ	و و	व	v					غ غ غ		gh
க்ஷ	క్ష	ಕ್ಷ	ക്ഷ	—	क्ष	ksh					ژ ژ		zh
—	ఁ	—	—	ں ن		ṅ					ض ض ض		ź
ள	ళ	ಳ	ള	—	ळ	ḷ					ظ ظ		ẓ
ற	ఱ	ಱ	റ	ڑ ڑ		ṛ; when double in Tamul, ṯṯ.					ذ ذ		z̤
ழ	—	—	ഴ	—		zh					ء		—
ன	—	—	—	—		ń					ً ٌ ٍ		n̄
ஃ	—	—	—	—		ch							
—	—	—	—	ف ف ف		f					ى ى		a
—	—	—	—	ق ق ق		q					ـ		—
				ح ح ح		ḥ					ٍ		—

APPENDIX No. XXV.

DRAVIDIAN VOCABULARY.

PART I.

NOTE.—*In this table the vernacular letters are spelt according to Appendix XXIII with the addition of a point under cerebral consonants.*

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanaudy.	Chentsoo.
1	2	3	4	5	6	7	8	9
Above	*anc.* misai ; *mod.* mél, mélé	mele	mele, moke	mene	méle, míte	paina, mída	mélé	vupár, vuparot
Air	*anc.* kál ; *mod.* káṭṭu, wáyu	gáli	kátu	gáli	káṛṛu	gáli	káṭṭi	batás
And, also	um, mélum	...	...	nu	um	—nni, —nnu, —nunnu	kuḍá	ke, ye
Ant	*anc.* uṛavi ; *mod.* eṛumbu, kaṭṭe-ṛumbu (black), sel (white), ísel (winged)	irupu	irumbu	chima	iṛumpu	chíma (black), chedalu (white)	yerúmbi	peppiḍi
Anybody	*anc.* yáráyinum ; *mod.* yárágilum	...	...	yeduayiná	yaṭoruttarum	evarainá	dáréna	kevu, jehaive
Anything	*anc.* yádáyinum, édáyinum ; *mod.* edágilum	...	...	yemmadainá	yaṭonnum, valla-tum	edainá, evainá	yeṭṭiyána	kichu, jehaive
Arrow	*anc.* kaṇai ; *mod.* ambu	ambu	ambu	yikke, ambu	ampu	ammu	billi	konḍu, kánḍ
As	*anc.* kaḍuppa ; *mod.* —póla	yetate	yepaḍi	lága	—póle	vale	bélé	lakha
Bad	keṭṭa	keṭṭa	polla	keṭṭa, keṭṭa-su	chíttá, keṭṭa	cheḍḍa	chedipóna	kharáb
Below	*anc.* kizhakku, *mod.* kízh, kízhé	kelage	kálake	tarle	tázhe	kinda	kiyyé	tolot, tól
Between	*anc.* náppaṇ ; *mod.* —naḍu, —naḍuve	—naḍuve	—naḍuve	neḍuve	naṭeve, naṭuvil	naḍama	nadivé	mayidhit, móyid
Bird	*anc.* puḷ ; *mod.* paṛavai, kuruvi	hakibu	pákhi	irgam (large) kunju (small)	*anc.* paṛava ; *mod.* pakshi	piṭṭa	kurivíngo	chodai
Bitter	kasanda, kasappá-na	káhi	késape	ketstsu	kaippuḷḷa—	chédu	chendí	titto
Black	*anc.* kariya ; *mod.* kaṛutta, kaṛup-pána	koppu	kari	karéḍu	kaṛutta	nalla, nalupu	karappí	kallá, kaliṭa
Blood	*anc.* sennír ; *mod.* udiram, irat-tam	netaru	latta	udaram	chóra	netturu	yertam	lahu
Boat	*anc.* pakaḍu ; *mod.* óḍam, pa-ḍagu	...	...	paḍava	vanji, vaḷḷam, tóni, óṭam, patavu	paḍava	padívi	lá
Bone	*anc.* enbu ; *mod.* elumbu	zellu	zellambu	yamaka	ellŭ	emuka, bokka	yemíki	haḍ
Bring	*anc.* koṇá ; *mod.* konḍuvá, konḍá	tanane	tarke	yiṭṭikonḍuva	koṇṭuva	tettsuta, tísu-konivattsuta	belusukó	áne, diya
Buffalo	*anc.* kárá ; *mod.* erumai	...	...	barre	póttu, eruma	enumu, barre, géde	dunnapotú	mohis
By	*anc.* —án ; *mod.* —ál, —álé	—inda	—irinda, in-da	valla	—ál, —koṇtu	—valla, —chéta	kunda	soyi
Cat	*anc.* púsai ; *mod.* púnai	koti	púne	púna	púçça	pilli	púne	billeyí
Cold	*anc.* taṇṇiya ; *mod.* kuḷirána, sídaḷamána	jei	jalli	musunu	taṇutta	tsallani	tsallarya	sittalá
Come	vá	ite-ba, ba	iti-ba, bara-ve	vá, vála	vá	vattsuta, ché-ruta	vádá	asibo, asili
Cow	*anc.* á, pettam ; *mod.* pasu, pasu-máḍu	dana	mádu	potamádu	paśu	ávu,	mádi	gáyi
Crooked	*anc.* koḍiya ; *mod.* kóṇiya, kóṇalána	gokke	kokki	vankara	vaḷañga	vankara	vankala	banko

PART I—(*Continued*).

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanaudy.	Chentsoo.
1	2	3	4	5	6	7	8	9
Crow	*anc.* karumpiḷḷai; *mod.* kákkai, kákkáy	kake	káke	káuragam	kákka	káki	káke	kovvá
Day	*anc.* el; *mod.* pagal, dinam, náḷ	dina	nalu	pammárú, paugámáru	pakal, nál, divasam	pagalu,	dinálu	din
Dog	*anc.* muḍuval *mod.* náy	nai	nai	náyi	náya	kukka	ná	kukkúr
Drink	kuḍi	kuḍi	kuḍidukove, kuḍidukoveko, tinke	kuḍi	kuṭi	tágu	kudik kiradi	pí, piyer
Ear	*anc.* sevi; *mod.* káḍu	kive	káḍu	soyí	kátu, chevi	chevi	kádi	kán
Earth	nilam, ulagam	mannu, búmi	bumi	tarra	nilam, maṇṇu	puḍami, néla, mannu	laré	bhúyi
Eat	tin	tinnu	tinke, tinnave, tinduko	vunu, kulla	tinnu, uṇṇu	tinu	tindeittu	kha, khayye
Egg	*anc.* sinai; *mod.* muṭṭai	moṭṭe	moṭṭu	muṭṭa	muṭṭa	guḍḍu	mitte	dimma
Eight	eṭṭu	yeṭṭu	yeṭṭu	yeṭṭu, vaṭṭu	eṭṭu	enimidi	yeminedi	áṭh
Elephant	*anc.* kaḷiru; *mod.* ánai, yánai	áṇe	áṇe	ána	ána	énuga	yénige	háte
Eye	*anc.* náṭṭam; *mod.* kaṇ	kaṇṇu	kaṇṇu	supán	kaṇṇu	kannu	kanne	áyenkhi
Far	*anc.* séymaiyána; *mod.* tolaiyána, dúramána	dúra	dúra	túra	akale	davvu	túram	dúr
Fat	*anc.* vaḷappamána *mod.* kozhuppána, kozhuppu	gobbu	kolupu	kovvitsu, nenamu	kozhutta	kovvina, kovvu, balisina	kovuttu	telubhariya tellaraṭa
Father	*anc.* tandai; *mod.* tagappan, appan	tande	ámme, amma	áva	aççan, appan	tandri, abba	ayya	bá
Fifty	*anc.* aimbahadu; *mod.* aimbadu	eivattu	ambadu	anjarakapottu	ampatu	yábhai	yábai	bara-ganda-doyicha
Fire	*anc.* azhal; *mod.* neruppu, tí	kichchu	tii, tí	nerupu	tí	nippu	nerpu	agin
Fish	*mod.* mín	minu	minu	minu	mín	*anc.* mínu, *mod.* chépa	míni	matstso
Five	*anc.* aindu; *mod.* aindu (anju)	eidu	eindu	anju	ănchu	aidu	aidu	pánch
Flat	*mod.* taṭṭaiyána	...	...	sadaru	paranna	taṭṭaina	tsadaddira	chekuno, chakkakini
Flower	*anc.* alar; *mod.* pú	huv	pu	puvvu	pú	puvvu, púvu	puvu	phúl
Foot	*anc.* kazhal; *mod.* aḍi, pádam	kálu	kálu	nadapánam	aṭi	adugu	adi	khoju
Forty	*anc.* nárpahadu; *mod.* nárpadu	nalvattu	nábadu	nalubadu	nálpatu	nalabhai	nalabai	poun, dasgandá
Four	*anc.* nángu; *mod.* nálu	nálku	náku	nálu	nálu	nálugu	náli	chár
From	*anc.* —il,—ininṛu; *mod.* —ilirundu	—inda	—irinda, inda	nunchi	—ninnu, —ilninnu	—nunchi	irindu	singa
Give	koḍu	tanane, koḍu	tarke, tarave	tá	koṭu, ta	ittsuta	téngida	nediyo
Go	pó	áte, hogu	bho	po	po	póvuta, veḷḷu	pó	jayivi, já
Goat	*anc.* veḷḷai; *mod.* veḷḷáḍu	áḍu	áḍu	áḍú	veḷḷáṭu	méka	méke	chheli
Good	nalla	volle	nálla	nalla	nannu, nalla	manchi, chokkáṭámu, bágu	manchi	achháye, bhálá
Great	periya	doḍḍa	doḍḍa	berudu	valiye, periye	pedda	peddalá	badaká
Green	*anc.* pasu; *mod.* paççai	hase	páje	yela paççana	paçça	ákupattsa, pattsa	patsangá	harihjal, sabuniya
Hair	*mod.* mayir	kúdalu	meiru	vonḍu, mogurú	talamuṭi rōmam	venṭruka	mayiru	kems
Hand	*anc.* tōḷ; *mod* kai	kei	kei	keyi, ki	kai	cheyyi	kayyi	hát
Handsome	*anc.* azhakiya; *mod.* azhakána, saundaryamána	singara	alagu	nalla	azhakuḷḷa	andamaina, tsakkani	manchilává	bhalláṭi, sundor
He (she, it)	*mod.* avan, avaḷ adu	avanu, avalu, adu	ava, avla, adu	avala paidi, adu	avan, aval, atu	váḍu, áme, adi	aván-avóatte	vu, vemhi, mayáta, vahe
Head	*anc.* senni; *mod.* talai	manḍe	tele	yendu	tala	tala	burre	múnḍ
Hear	kéḷ	kretine, voradine, kelu	kelke, keṭukove	kéru	kéḷ	vinu	kélikadá	sún
Here	*anc.* ivaṇ; *mod.* ingé	illi	inge	past tense, kéte iṭé	iviṭe	ikkaḍa	inge	íhana, yechhiṇi

PART I—(*Continued*).

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanaudy.	Chentsoo.
1	2	3	4	5	6	7	8	9
His	*anc.* avanadu; *mod.* avanudaiya	avanudu	avanudu	attumúdidi	avanṛe	vánidi, váni-yokka	anandi	vahár
Hog	*anc.* kézhal; *mod.* panṛi	haudij	pani, panni	panḍri	panni	pandi	pandikut-ti	suvvar, ghusir
Horn	*anc.* kóḍu; *mod.* kombu	khombu (kombu?)	khombu (kombu?)	kommu	kompu	kommu	kombu	sing
Horse	*anc.* páymá; *mod.* kudirai	kudure	kudure	kudara	kutira	gurramu	gudde	ghoḍo
Hot	*anc.* veyya; *mod.* súḍána, veppamána	bisse	kája	vuḍuku	chúṭuḷḷa	véḍi, uḍuku	yédi	joru, ṭapta
House	*anc.* illam; *mod.* víḍu	mane	kure	vúḍu	víṭu, illam, kuṭi	illu	búdu	ghor
How?	eppaḍi	yetate	yepaḍi	yana	enngane	etlá	yeppadi	kemune
How much?	*anc.* ettuṇai; *mod.* evvaḷavu	yesaga	yettani	yeṭṭana	etra	enta	yemmata-ra	ketta, ket-tagulá
A hundred	núṛu	nuru	núru	pottupottu	núru	núru, vanda	núre	pánch voḍi (pánch koai?)
Hunger	pasi	hasu	passi	soda, perunt-su	viśappu	ákali	pashi	bhúk, bho-ku
I	*anc.* yán; *mod.* nán	ná, nánu	nánu, ná	ná-nu	ñán	nénu	nénu	há-me, há-mi
In	*anc.* —kan; *mod.* —il	-bollage	—úlle	kóle	—il, uḷḷil	—ló, —andu	lé	gant, ta
Iron	*anc.* karumbon; *mod.* irumbu	kabbuṇa	irumbu	inumu	irimpu	inumu	inume	loho
It	*anc.* ahadu; *mod.* adu	adu	adu	adu	atu	adi	adi	vahe
Kill	kollu	koddane, konduhoku	kolluke, adi-dukove, kondukove.	kollu	kollu	tsampu	tsampará	marephelá, moreva-leyo
Laugh	*anc.* nagu; *mod.* nagai, siri	nage	jirike, girká-ḍu	sírí	chiri	navvu	chirippu	hás
Leaf	*anc.* aḍai; *mod.* ilai	yelle	yelle	yela	ila	áku	tige	pát
Lift up, raise	*mod.* eḍu, túkku	yettinetúki-ne, túku	yekkuke, túkove	yeḍuḍu	eṭu, pongi	ettu	yeduttu-kó	tol
Light	*anc.* oḷi; *mod.* veḷichcham	dipa	valaku	yelugu	veḷiççam	veluturu, velu-gu	belishirá	díp, vujjait
Little	siṛiya, chinna	vósi	kanja	rútana	kuṛe, ittiri, çeriya	kásta, koṉ-chemu	káshimdu	raj, chone
Long	*anc.* neḍiya; *mod.* ninḍa, neḍu	udda	uddya	vasaram, aragam	nínṭa—	niḍupu, poḍugu	poḍuggá	vuncho, namoṭá
Man	*anc.* magan; *mod.* áḷ, mani-dan	manisha, alu	manisha, alu	menasam	áḷ, manushyan (Sanscrit)	manishi	manishi	mánús
Mine	*anc.* enadu, *mod.* ennu ḍaiyadu	nanadu, yennadu	nannadu, yennadu	nambudidi	enṛe	nádi, náyokka	yendradi	hamár
Monkey	*anc.* kaḍuvan; *mod.* kurangu	korangu	koranga	kote	kuranga	kóti	timma	mákaḍ
Moon	*anc.* tingaḷ; *mod.* nilá, sandiran	chandra, tin-gla.	nálavu	neláv	tinkal, chandran (Sanscrit), anbiḷi	nela, jábilli, vennela	nelavu	másu
Mosquito	kosugu	súgane	jolle	dóma	kotu, piṛukka	dóma	kóshugu	musso
Mother	*anc.* ínṛáḷ; *mod.* táy, áy	ávve	ávve	táyi	amma, taḷḷa	talli, amma	amma	má
Mountain	*anc.* varai; *mod.* malai	beṭṭu	mele	geṭṭu	mala	koṇḍa, guṭṭa	konde	parval
Mouth	váy	bai	vai	váyi	váya	nóru	báyi	mú
Move, walk	naḍa	naḍedane, naḍe	naḍake, naḍ-andu, kove	naḍá	naṭa	naḍutsuta	nadakara-di	tzo
Much	*anc.* mikka; *mod.* mikunda	appara	thumba	aragam	vaḷare	ninḍá, mikkili	balamgá	bhóri
Name	pér	hessaru peru	hessuru	réru	pér	péru	péri	ná
Near	*anc.* aṇmai; *mod.* kiṭṭa	pakkaru	kitta	k'ṭṭa, kíṭṭáyi	aṭukke	dápu, daggera	dagra	lág
Night	*anc.* al; *mod.* ira-vu	iru	riṭṭu	ravu, náváru	rávu, rátri (San-scrit)	réyi, mápu	andiki	ráyit
Nine	*anc.* onbán; *mod.* onbadu	vombattu	vombadu	ombadu	onpatu	tommidi	tommidi	lo, tota
No	illai, alla	illa	ille	yillá	illa, alla	lédu	illé	nahí
(Do) not	vénḍám	boḍa	vánḍa	mána	vénṭá	vaddu	máná	kámmai
Now	*anc.* ippozhudu; *mod.* ippódu	igale	ípá	ippudu	ippóḷ	ippuḍu	yippadi	yekhán, yechiṇi

PART I—(*Continued*).

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanaudy.	Chentsoo.
1	2	3	4	5	6	7	8	9
Of	*anc.* —adu ; *mod.* —uḍaiya	—ya, —na	—no	vakka	—uṭe	yokka	dum	vór
Oil	*anc.* néyam ; *mod.* eṇṇey, ney, niṇam	yeṇṇe	eṇṇe	vanna	eṇṇa	núne	núne	tél
On	—mél	—mele	—mele	mene	—mél, —míte	—mída, —paina	mélé	voparóru, vuparot
One	onṛu	vondu	vondu	vonde	onnŭ	oka	vondu	yek
Or	alladu	innadhole	illavitta	taradote	illenkil, allenkil	léka	pónáké	nahi
Ours	*anc.* emadu ; *mod.* nammuḍaiyadu, engaḷuḍaiyadu	yengadu	nammudu	namburudu	nammuṭe, nanngaḷuṭe	mádi, mayokka	nambaradi	hamár
Plantain	vázhai	palehaṇṇu	pálepámbu	arati	vázha	araṭi, arati-paṇḍu	aritichedi or ariti-puzham	koḍel, so-dail
Raw	*anc.* pazháda; *mod.* pachchai, káyána	hásu	paje	paççi	paçça--	paççi, káya	panchchi-ká	kancho, káchoṭá
Red	*anc.* seyya ; *mod.* sivanda sivappána	kempu	jevve	yarraḍekirá	chuvanna—	erra, erupu	yerranga	goriya, go-rinṭa
Ripe	*anc.* kaninda ; *mod.* pazhutta	...	...	pandusu	pazhutta—	mágina, paṇḍu	pagat	mugilá, pakká
River	*anc.* várippunal ; *mod.* áṛu	nirú	palla	áru	puzha, áṛŭ	éru	kálané	loddi, ladí
Road	*anc.* neṛi ; *mod.* vazhi	dari	beii, daḍḍa	yegi	vazhi	dári, dóva, báṭa	veyyí	bát
Round	*anc.* sérvána ; *mod.* tiraṇḍa, uruṇḍai	uruṭe	ruṭṭe	gundraya	urunṭa	gunḍu, gunḍ-rani	gundu	chatan, goṭyaṭi
Run	óḍu	vaḍu, voḍu	voḍipoke, voḍu	voḍu	óṭu	parigettu, uruku	vódrá	beg
Salt	uppu	uppu	uppu	nanam	uppŭ	uppu	uppu	nún
Seven	*mod.* ézhu	yellu	elu	yegu, vogu	ézhŭ	éḍu	yéda	sát
She	avaḷ	avalu	avla	paidi kuratsa	avaḷ	áme	avó	...
Short	*anc.* kuṛiya ; *mod.* kuṭṭaiyána, kuḷ-ḷamána	mone, kúle	kúle		kuṛiya—	kurutsa, kuru, poṭṭi	potti	khaṭa
Short man	*anc.* kuṛiyan ; *mod.* kuṭṭaiyan, kuḷḷan	kúle alu	kúle manisha	kurtsá	kuṛiyavan, kuḷḷan	poṭṭi vádu	pottilábám	khaṭoṭi
Silent, Be	*anc.* amai ; *mod.* summáviru	symaniru, súmagiru	summa iru, maniadeiru	summa, tsummate-yiru	minṭátiri	úrike undu	chummar-ki	ttsuperaho, tsupparo
Sit down	*anc.* uḷukkáru ; *mod.* uḍkáru	kuli, kútiru, kutuko	kukuve, uk-andu kove	vukká	iri	kúrtsuṇḍu	vulakán-dukó	bos
Six	áṛu	áru	áru	áru	áṛŭ	áru	áru	chhe
Skin	*anc.* adal ; *mod.* tól	tolu	tolu	tólu	tól	tólu	tólu	chamaḍá
Sky	*anc.* viṇ ; *mod.* vánam	bana	vanu	mené	vánam	minnu,	mabbu	sarg
Sleep	túngu	voragine, nidre madu	rombuve, kaḍandu-kove, kad-anduko	tugguḍayi varugu	uṛangu	tóngúnḍuta	túngu	súl, sutiyár
Small	*anc.* vaṛidána ; *mod.* siṛiya, sin-na	...	...	chinna	cheṛiya	chinna	chinnadi	khopati
Snake	*anc.* kaḍchevi ; *mod.* pámbu	havu	pámbu	túna, karugu	pámpŭ	pámu	pámbi	sáp
So	appaḍi	hage	ipaḍi	aṭe	anugane	atla	appidiyé	vu, vuma-ne
Sour	puḷitta	bulli	pulli	pulladikkiri	puḷiyulla—	pullani, pullaṭi	pullangá	ammuto
Speak	pésu, sollu	mataḍu, nú-ḍi	peshike, pesu	vasettulá	paṛa	máṭláḍu	kavandrá	kathháko, kathhá
Square	saduramána	jauka	javuka	tsadaram	chaturamáyuḷḷa	chadaramu, chaukamu	tsadarangá	sadunúta, chakkata
Stand up	ezhundu-nil	niddiru, yed-du	nike, yendu, kove	ninḍrukon-ḍuyirla	nillŭ	nilutsuta	nindukó	thá doho
Star	*anc.* viṇmín, ván-mín, táragai	mínu	vánu minu	tsukka	nakshatram (Sanscrit)	tsukka	tsukké	bhuḍaká
Stone	*anc.* kan ; *mod.* kal	kallu	kallu	kellu	kallŭ	ráyi, kallu	kalli	paththar
Straight	ozhungána, nérána	neṭṭage	neṭṭe	sarigga	nere, chovve	sarigá, tsakka-gá	tsakkangá	sorichhaiy-ye, sori-karáha-che
Strike	aḍi	huidaṇe, hui	áḍike, aḍi	mottu	ati, tallŭ	koṭṭu	mottará	mar, maryo

PART I—(*Continued*).

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanaudy.	Chentsoo.
1	2	3	4	5	6	7	8	9
Sun	pagalon, súriyan	hottu	podu	proddu	súryan (*anc.*) náyer	poddu,	pozhudu	belá
Sweet	*anc.* iniya; *mod.* tittippána	si	rúse	teyyanikkiri	madhuramulla	tiyyani, típu	kammangá	mithá
Take	éttukkol, eḍut-tukkol, eḍu	tegi	bongu	váko, vánkemáte ;	eṭu	puttsukonuta, tísukonuta	belsukó	niyyo, niyá
Take away	*anc.* koḍupó; *mod.* koṇḍupó, eḍuttuppó	yettiunḍ hogu	eḍedu konḍu poke	yiṭṭikonḍupo, vakkondupomu	konṭupo	tísukapó	belsukondupó	nikeja, niyá
Tall man	uyarndaáḷ	uddalu	udda—manisha	vasaram	uyarnna áḷ	poḍugáṭi váḍu	podagábalandi manishi	namo
Tell, relate	sol, sollu	hlegíne, helu	sollre, sollu	sonnu	paṛa	cheppu	péshidá	ko
Ten	*anc.* orupahadu; *mod.* pattu	hattu	pattu	pottu	pattu	padi	padi	das
That	adu, anda	adu	adu	adu	avan, avaḷ, atu	adi	adu	vahe, ke
Theirs	*anc.* avaradu; *mod.* avargaḷuḍaiya	avaradu	avarudu	askaladu	avaruṭe	váridi, vánḍla	agaldu	vahár
Then	*anc.* appozhudu *mod.* appódu	agale	apaḷe (apazhe)	appuḍu	appóḷ	appuḍu	appudu	tekhán, areghoḍí
There	*anc.* avaṇ; *mod.* angé	alli	ange	aṭi, auge	aviṭe	akkaḍa	auge	unhaná, vuha
They	avar, avargaḷ	avaru	aduru	ailu	avar	váru	agal	vamhi
Thin	*anc.* melliya; *mod.* melinda	melle	vaḍage	palutsani	meliñña—	palatsani	palasanga	saruvoti, sakunaṭa
Thine	*anc.* ninadu; *mod.* unadu, unnuḍaiyadu	ninnadu	ninnadu	nimbudidi	ninṟe	níḍi, níyokka	venedradi	thor
Thirst	nírvéṭkai	arupu	veke	dappikka	veḷḷamdáham	dappi	tanni mékidu	pyaslagí, pyas
Thirty	*anc.* muppahadu; *mod.* muppadu	muvattu	mubaddu	muppadu	muppatu	muppai	muppai	sát-gandá-doyicha
This	idu, inda	avana	ava	idi	ivan, ivaḷ, itu	idi	adu	vahare, vu
Thou	ní	ni	ni	nívu	ni	nívu	ni	yi-ke, tumyi, tu
Three	múnṟu	muḍu	muru (muḍu ?)	múdu	múnnu	múḍu	médu	tin
Thus	ippaḍi	hága	ipaḍi	yiṭe	inngane	itlá	yippadi	yi, yemune
Tiger	*anc.* pul; *mod.* puli	huli	pulli	beruvúli	nari, puli, kaṭuvá	puli	puli	bág
To	—ku ,,	ge, ke	ke	ku	—kku, —nnu	ku, ki	ku	ku
To-day	*anc.* ittai; *mod.* inṟu, inṟaikku	indu	indu	ímáu	innu	néḍu	i'poddu	ayije, ajko
To-morrow	*anc.* pinṟai; *mod.* náḷai, náḷaikku	nale	nale	tellari	náḷe	*anc.* elli; *mod.* répu	nálaki	kayil
Tooth	*anc.* eyiṟu; *mod.* pal, pallugaḷ(pl).	hallu	pallu	rellu	pallu	pallu	palli	dát
Tree	seḍi, maram	mara	mara	chedi	cheṭi, maram	cheṭṭu	chedi	gáts
Twenty	*anc.* irupahadu; *mod.* irupadu	ibbattu	irvadu	yiruvadu	irupatu	iruvai	iruvai	bis, panchganda
Two	iranḍu	yeraḍu	renḍu, irenḍu	renḍu	ranṭu	renḍu	rendu	duyi
Ugly	*anc.* payirppána; *mod.* aruvaruppána, andakkéḍána	trola	polla	mallga illa	arappulla-ákátta	kurúpamaina	meriliyá	kharáb
Understand	aṟi	aridane, ariduko	arike, arindiru	telentsu	aṟi	telusukonuta	nidanintsukó	máḷúm
Village	*anc.* pakkaṇam; *mod.* úr	úru	úru	porudu—	désam, grámam	úru	vúru	gá
Wake	vizhittukkoḷ	yecharikeagiru	yelke, nenevá girave	yeddirla	unaru	mélukonuta	mélukondam	jaglero jágaleraho
Water	*anc.* punal; *mod.* taṇṇír, nír	niru	dani	tanni	veḷḷam, nír	níḷḷu	tanni	páni
We	*anc.* yám; *mod.* nám, nángaḷ	ye-uga	navu	namburu	nám, ña-ngal	mému, manamu	nambadu	hame
Weariness	*anc.* ayarvu; *mod.* iḷaippu	salupu	salipu	tsáli	taḷarcha	alupu	yelasám	haram, vusiki
Weep	azhu	alu, áltáne	éke, aluve	agulá, agu	kézhu, kara	éḍtsuta	agudam	kánd, kandiyár
What?	*anc.* yádu; *mod.* enna	yenu	yenna	yemmatuku	entu	émi, edi	yandu	ki, kochcher

PART I—(*Continued*).

English.	Tamul and dialects.				Malayalam.	Teloogoo and dialects.		
	Tamul.	Coorumba.	Iroola.	Yerkala.		Teloogoo.	Yanandy.	Chentsoo.
1	2	3	4	5	6	7	8	9
When?	*anc.* eppozhudu; *mod.* eppódu	yega	yepa	yeppuḍu	eppól	eppuḍu	yeppu	kekhan, kekkoneki
Where?	*anc.* evaṇ; *mod.* engé	yelli	yenge	yéte	eviṭe	ekkaḍa	yenge	kuhaná, kahá
Which?	*anc.* yádu; *mod.* edu	y-av-andu	yedu	yedi	etu	edi	yéndi	kahá
White	*anc.* veḷḷiya; *mod.* veḷutta, veḷḷai	bole	velle	valladu	veḷutta—	tella, telupu	tella	vujula, savarniṭa
Who?	*anc.* yár; *mod.* ár	y-aru	aru	yédu	ár	evaḍu	dára	ke, vuhe
Why?	*anc.* ennai, *mod.* én, édu	yeka	yenna	yemmatuku	entinŭ	éla, enduku	yétuka	kissále
With	—óḍu, —kúḍa	—sangaḍa	—kúḍa	tó	—oṭe, —kúṭe	tóḍa, tó	tó	sang
Within	—uḷḷé	vollage	ulle	vulle	akattŭ	lópala, lógá	lóga	bhitar
Without	*anc.*— anri; *mod.* —illámal	—allade	—adalla	yillakonda	—illáte, —kúṭáte	—lékuṇḍá	illádapóná	navunánai
Without, outside	veḷiyil	...	...	...	purame, or purattŭ	bayita	bétiki	bahar
Yam	vaḷḷi, kizhangu	...	...	peṇḍalam	kizhangu	peṇḍalamu	banduli	sarú, sakar kanda
Ye	*anc.* nívir; *mod.* nír, níngaḷ	ning-a	niv	ning-alu, avaru	niññgal	míru	níngal	te, tu — myi
Yes	ám	handu	ama	ambo, nalla	ate, úvvŭ	avunu	aínbó	schchhá, hoyyá
Yesterday	*anc.* nerunal; *mod.* néttu	ninne	netu	nesu yennáyi	innale	ninna	nétti	káyil, porusú
Yours	*anc.* numadu; *mod.* umadu, ungaḷadu	ningadu	nimmudu	ningaliḍe	niññgaṭe	mídi	ungaladu	thor

PART II.

English.	Canarese and dialects.				Tooloo.	Coorg.	Khond.	Gond.
	Canarese.	Badagah.	Kotah.	Todah.				
10	11	12	13	14	15	16	17	18
Above	méle	mele, vodega	mele	mel	mitt	mékŭ	sendo	kis, parro
Air	*anc.* elaru; *mod.* gháḷi	glai (1 particular sound).	gále	kátu	gháli	káttü	vlíu	báribá itá, wadi
And, also	—ú (added to the end of the words coupled together)	o(?)	...	o(?)	lá	innya	otté	uṇḍe úḍé
Ant	írive	irupu	irbe	erb	pijin	irpŭ	dímbo (white) soroka (black or red)	patte (black); udeli (white)
Anybody	yárádarú	...	...	...	erlá, eránḍalá	árajenga	éstanju at'heka	vóndi —ándi
Anything	yávadádarú	...	...	...	vavulá, vavuánḍalá	ennatajenga	est'ha at'heka	bittichij, bore
Arrow	*anc.* saralu; *mod.* ambu	ambu	ambe	ambu	biru	ambŭ	gúdi, ámbu	tir, jiyatúr
As	*anc.* —pol; *mod.* —háge	hyinge, yetate	yete	yingei	anchane	ennanŭ	deengi	inchur mandá
Bad	keṭṭa	holla	ága	vollade	paḍike	kuṭṭadü	roí	buromanda, kharab
Below	keḷage	kira	kriyage	erg, neshg	tirt	kidatŭ	nédé	naili, sir, khálai mandar
Between	—naḍuve	—naḍuve	—naḍle	nárth, —káshi	—naḍuṭu	nadulü	madt'he	nuddum bíchte mandar
Bird	hakki	hakibu	peke (pakhi?)	bilti	pakki	pakki	potta	—itte, pitte
Bitter	khai	káhi	kaju	káthti	kaipe	kaipatŭ	pitha	kaḍúta, kaitá
Black	kari	kari, kappu	kari	kárthli	kappu	karttadŭ	káli kálájáná	kariyal
Blood	*anc.* kenníru; *mod.* nettaru	netru	netra	bách	netter	chórĕ	rakka	nattur, natur
Boat	*anc.* páru; *mod.* dóṇi	...	...	...	vóḍa	ḍóni	donga	dongo
Bone	*anc.* elume; *mod.* eluvu	yellu, illu	yelave	elf	elu	elambŭ	prénu (sing.) préka (pl-)	haḍa, padeká
Bring	taru, tá	tanane	kaḍube	tashken	konḍápini	ŏttŭ, tan—dabá	támu	taránígá, táttana

PART II—(*Continued*).

English.	Canarese and dialects.				Tooloo.	Coorg.	Khond.	Gond.
	Canarese.	Badagah.	Kotah.	Todah.				
10	11	12	13	14	15	16	17	18
Buffalo	emme, kóṇa	...	...	...	erme; eru	emmo	kóru	háliyá, boda(m); yedmi (f)
By	—inda	—inda	—inde	—ind, ar	—aḍd	inji	gúna	igat, turse, durse
Cat	bekku	koti	pise	koti	puchche	pugno	miau	bilál
Cold	tampu	jalli, koravu	jalli	perthti, kuorthti	ch'hali	kuḷḷaru	jillipenni (weather)	mudungtá, múragtá
Come	baru, bá	ite —ba	it —va, váge	it —va	barpini	ba	vámu	báránígá, wara
Cow	*anc.* ávu; *mod.* hasuvu, ákaḷu	dana, hasu	áve	dánám	petta	payyu	kóḍi	dhoriyal, tali, muḍa
Crooked	soṭṭa	gokke	kenke	balug	mónṭu	donkána	kongoḍi	teḍho
Crow	kági	kake	káke	kák	kakke	káku	káka	káwá, kawal
Day	*anc.* pagalu; *mod.* hagalu	dina, jina	nále	nál	pagel	pogalu	dina or máthengi	patti, diu
Dog	náyi	nai	nai	noi	náyi	náyi	nahuḍi	nai, nei
Drink	kuḍi	kudi, kudidane	úne, unikiene	únu, uḍth —bini	parpini	kudi	unmu	yerú undkar, undaṇa
Ear	kivi, kimi	kive	kive	kevvi	kebi	kemi	kriu	kavi
Earth	poḍavi	búmi	búmi	búmi	bhumi	nella	bírá táṇá (the earth)	dharti, dhartri
Eat	tinnu	tinane, tinnu	tiggene, tinnu	thedth bine, tennu	tinpini	uṇṇu	tinmu*	báratit, tindana
Egg	tatti, or moṭṭe, or guḍḍu	moṭṭe	moṭṭe	moṭṭe	tetti	muṭṭô	vatta (sing.) vaṭṭánga(pl.)	mej, mes
Eight	enṭu	yeṭṭu	yeṭṭe	eṭṭ	eṇmo	eṭṭu	átta	anamur, yermud
Elephant	áne	áṇe	...	áṇ	áne	áne	at'hi	yeje, yani
Eye	kaṇṇu	kaṇṇu	kaṇṇu	kaṇṇ	kaṇṇ	kaṇṇu	kaṇṇu (sing.) kannka (pl.)	kán (sing.), kank (pl.)
Far	...	dura	durame	podthdshi	dúra	duratu	sekkó or okko	lak, langkak mandar
Fat	kobbu	kobbu	porále	bechiti	thóra	chokkana	súja	khodavinch, tajo, moto
Father	appa, tande	appa, tande	eyan, eiyane	eyan, eiyan	amme	appu	abbá	wáwo, bába, dáda
Fifty	aivattu	eivattu	eivatte	eboth	aivo	aimbattu	rikódi dosu	...
Fire	benki	kichchu	dije	nebb, dilth	tu	tittu	náḍi	kis
Fish	mínu	minu	mine	min	mín	minu	minu (sing.) mínka (pl.)	min
Five	aidu	eidu	anje	utsh	ain	anji	páncho	saijhan, seiung
Flat	chappaṭe	...	...	...	chaṭṭe	sanna	sore	naphúral maṇdánur, neli
Flower	*anc.* puvvu, or pu; *mod.* huvvu, húvu	húvu	púve	puf	pu	puvo	púnga	phúl, pungár
Foot	*anc.* aḍi; *mod.* hejje	kálu	kálu	kál	hajje	adi	kádu	kalk, ka
Forty	nálvattu	nalvattu	nalvatte	narsh —bath	nálpo	nápadu	rikóde	rand —eisai chális
Four	nálku	nálku	náke	nánk	nál	nálu	sári	náln, nálung
From	—inda, —deseyinda	—inda	—inde	—ind, ar	aḍd	injo	rái, tái, trái	—te(?)
Give	*anc.* Í; *mod.* koḍu	tanane, ta, koḍu	kaḍube, ta	tashken, ta, kor	korpini	tá	simu	sí, siana
Go	hógu	áte hogu	at hogu	atfo	pópini	povu	sajju	hannogáima, handana
Goat	kuri	aḍu	áḍu	áḍu	éd	ádu	óda (sing.) ódangá (pl.)	bokra, bokadal (m); yetti (f)
Good	oḷḷé	volle	volle	vulti	eḍḍe	nalladu	negari-nagi.	bésmanda, chokat
Great	doḍḍa	daḍḍa	daḍḍa	etud	mallán	balliyu	derari, gami	fada, paror, mota
Green	hasuru	hase	paje	paje	pachche	paççe	...	haro, hirawa
Hair	kúdalu	maṇḍe, kúdalu	mire	mir	kujal (long hair of the head) róma (of the body)	talamu	tlámbéri (of the head)	rodáng, chuti
Hand	*anc.* (tol ?); *mod.* kai	kei	kei	koi	kai	kai	kágu or káju	kaik, kyk
Handsome	cheluva	singara	pasane, singara	nárthti	porlu	cháianü	sánju	sajari
He	*anc.* avam; *mod.* avanu	ava	avane	adum, avan	áye	ava, avang	ianju	hore
Head	tale	maṇḍe, tále	maṇḍe	maḍḍ	tare	maṇḍe	tláu	talla, talá
Hear	kéḷu	kretine, voradine, kḷé	vorutabe, voruṭṭulle	kelth bine, vonatth bine, voraṭir	kéṇuni	kolu	venmu or venjámu	keinjana
Here	illi	illi	iyáne	it, ing	inchi; múlu; muḷpa	illi	imba	ingabará

PART II—(*Continued*).

English.	Canarese and dialects.				Tooloo.	Coorg.	Khond.	Gond.
	Canarese.	Badagah.	Kotah.	Todah.				
10	11	12	13	14	15	16	17	18
His	avana	avanadu	avanade	avandu	áyanau	avandadu	éarit'hi, trant'hi	ona, honá
Hog	*anc.* pandi ; *mod.* handi	handij	panje	pandij	panji	panḍi	pajji	paddi, padi
Horn	kóḍu, kombu	khodu, khombu (kodu ?)	khobe (kobe ?)	kuar	kombu	kumbu	kóju	singh, kor ; kokak (pl.)
Horse	kudure	kudure	kudare	kadarae	kudure	kudre	goḍá	konḍand (?), kodá
Hot	bisi	uri, bisse	úri	kásti kásviji	beçça	bekke, kuipa	béhéni	kástai, kastá
House	mane	mane	pei	arsh, kuaṭ, dae —ryhalti	ill	mane	iddu	ron
How ?	hyánge, yenṭu	yétete, hyage	yége	hyage	encha	ennana	issingi	báhún
How much ?	eshṭu	yéja	yéje	ɣet	ét	edidiaku	esse	banchur, bachola
A hundred	núru	nuru	nur	vaddnúr	núdu	núru	pancho kodi	nur so
Hunger	haśivu	hasu	peṭṭi-hoje	bir-erthti	baḍavu	baipu, padipu	sákki	karu karusátur
I	*anc.* án : *mod.* nánu	ná, ná-nu	áne	ánu	yán	nánu	ánu	manu anna
In	*anc.* —ol ; *mod.* oḷage, —alli	—vollage	—ollage	—ult	—ulai —ṭ	—ullatu	lái	imitté
Iron	kabbiṇa	kabbuṇa	ibbe	kabbuṇ	kaṛba	irumpu	lóha	kachchi
It	adu	adu	ade	adu	av	adu	ira	wur
Kill	kollu	koddane, kodd hoku	taverigábe, tavarsiḍade	besht vers bini, birshkir, koddu	kerpini	kollu	vépa—kospa	jaksívaústi, jakkana
Laugh	nagu	naggedane, nege	karsibe, kárji	karth bini, kari	telipuni	tolu	kápka	kavítoní, kawana
Leaf	ele	yelle	yelle	ersh	ire	elakanḍu	áku (sing.) áka (pl.)	áki
Lift up, raise	ettu	yettinetúkine, tuku, bi	yetti gabe mekarse	túchs bine, mokversbine, túch	derpuni	nettu	dénsumu	tehá
Light	beḷaku	divige	belaku	velaku	boḷpu	boli, boppu	ujari	berachi, vedchi
Little	tusa, tho-ḍe	kuna, konji	kunade	yeddi kinud	onte	chennangu	kogi, kogari	thodko jarásó mandar
Long	udda	udda	uddame	nirigiti	udda	uddadu	lamba	lamba, leior
Man	áḷu	manija, alu	ále, manijon	ál	áḷ	álu	mréhenju	máne, mánwál maurdsal
Mine	nannadu	yennadu	yennade	yennadu	ennau	odadu	nant'he	nává ángdo, náwá
Monkey	kódaga, manga	korangu	korte	turuni, kodan, pershk	mange	kótu	máku	bandara, kove
Moon	tingaḷu	tiggalu	tiggule	teggal	tingolu	nellaji	dánju	chandal, chanda, nalej
Mosquito	solle, chukkáḍi	chukattu	chukattu	chikkattu	umil	chellu	bisa or vihángá	misi (visi=fly)
Mother	táyi, avva, amma	avve, tai	avve	avv	appe	avva	iyya, taddi, talli	aval, ya, ma, ban
Mountain	*anc.* male ; *mod.* guḍḍa, male, beṭṭa	beṭṭa	vettume	bana, dalta, mársh	guḍḍe	kunḍu	sóru	dongar, mattá
Mouth	báyi	bai	vai	boi	báyi	bayi	súḍḍa	udi (mishang=moustache)
Move, walk	naḍe	naḍedane, naḍe	naḍegabe, náḍe	naḍedersh bini, at nar	naḍapuni	naḍu	táká	taká, takana
Much	bahaḷa	thumba, appara	yeddame	upam	dinja	pertthudumba	déhá	wale, pharol balé mandar
Name	*anc.* pesaru; *mod.* hesaru	hesaru	per	per	pudár	peda	padda	batti, parol, pallo
Near	hattara, sáre	vottura, sári	vottle	kéhuri	muṭṭa	pakkala	sodi—vahata	karum, múntosa, mandar
Night	*anc.* iraṭu ; *mod.* iraḷu.	iru, kattale	kattale	kaggár	irl	iraḷu	nadangi	narka, narkaát
Nine	ombhattu	vombattu	vorupáde	anpath	ormbo	oyim-badu	nogaṭṭá	no, nau
No	illa, alla	illei	illa	á	ijji	alla	ahé	halli, hillé
(Do) not	béḍa	béḍa	véḍa	achadi	boḍchi	...	kúná	hillé, bará
Now	íga	iga	innale	eni	itten	ikka	iddé	inga
Of	na,—da	—ya,—na	—na	—na	—na,- da,- ta	—da,—andu	tai	orá, bara
Oil	eṇṇe	yeṇṇe	yeṇṇe	eṇṇei	enne	onno	niju	níng, ni
On	—méle	—mele	—melte	—mel, —mok	—mitt	—midatu	kuiti	imitté
One	ondu	vondu	vodde	vadd	onji	ondu	ro	undiḷ

PART II—(*Continued*).

English.	Canarese and dialects. Canarese.	Badagah.	Kotah.	Todah.	Tooloo.	Coorg.	Khond.	Gond.
10	11	12	13	14	15	16	17	18
Or	ádarú, illave	illave, illadhóle	illave	illade	ijjiḍa; attaḍa	attava	aat'haka	idaré
Ours	nammadu	yengadu, nammadu	nangude	yemmadu, nammadu	enkuḷenau	engaḍu nangaḍu	mánt'he	mábai, mawa
Plantain	báḷe	bláchaṇṇu	váhaṇṇe	pávom	báre	báḷo	táḍi	kerkera, (kereng, pl.)
Raw	hasi, káyáda	háse	paje	paji	paji	paççe	sidari	kachchomanda hivwo, kai
Red	kempu	kebbu	kembu	kebbu	kempu	chondadu	rat'ha	lal
Ripe	mágida	...	...	...	parnd	pannu	senja	pútá, pandatál
River	*anc.* poḷe; *mod.* hoḷe	halla, holla	peye, pevi	pa	tude	poḷe	pehéréju	dondá, jhodi, dhoda
Road	*anc.* pádi; *mod.* hádi	dári	áláre	áldár	sádi	baṭṭe	páhária or páhari	sarri
Round	gunḍu	uruṭu	mudde	...	uruṭu	urandadu	gúndurúpa	gola, gol
Run	wóḍu	vaḍu, voḍu	vose, ate voḍu	váḍu, vor	páruni	odu	géha	vittana bittá
Salt	uppu	uppu	uppu	uppu	uppu	appu	saru	sabbar, sawod
Seven	éḷu	yellu	yeye	el	éḷ	eḷu	sáta	yenu, yetu, yedung
She	*anc.* avaḷ; *mod.* avaḷu	avla	avale	aval	áḷ	ava	iri	war
Short	giḍḍa	mone	mone	kurigiti	kuddya	cheriadu	koggári	chúndur, chodor
Short man	giḍḍa, kuḷḷa	moneava	moḍ ále	kuruḍa mach	kunṭe	kuḷḷu	koganju	chundúr-manda
Silent, Be	summaneiru	súmagiru, sappeniru, japaniru	bheve, pakiru	bokkiru, bokir	manipande-uppuni	munda	kinnino manmu	immakam-meneman
Sit down	kútukoḷḷu	kuli, kútiru	kúsure, kúkiru	neshkir	kuḷḷuni	alata	kókmu	uddaniga, uddana
Six	áru	áru	áre	ár	áji	áru	so	sárong, sárug
Skin	tovalu, togalu	tolu	tuval	tuvarsh	togal; charma.	chakkala	pándá	tol
Sky	*anc.* mugilu, bán, bánu; *mod.* elarvaṭṭe	banu	vaname	ban	bána; ákásha	bana	múdengi	bádur (?) abhar
Sleep	niddemáḍu	voragine, voragu	pat kene, voraga	vorchthbin, vorgine, vorg	nidreḍpuni	oru	doha-súnja	sungji, narmana
Small	saṇṇa, chikka	...	...	...	ellya; kinnya	cheri	koggi	chudor, loro pataro
Snake	*anc.* pávu; *mod.* hávu	hávu, pámbu	pábe	páb	uççu	pambu	srásu	taḍás (taras?)
So	hége	hinge	áte	ingei	ancha	annano	enga	arobara
Sour	huḷi	hulli	pulsa	pülthati	puḷi	puḷi	sráha	chúk manda, savitá
Speak	mátáḍu	nudi ḍane, mátáḍine, nuḍi	mansbe, mánivo	eshthbini, arvershbini, arvor	páteruni	takupare	vesmu	bárámanke, wurkana
Square	chauka	jauka	saṭṭe	...	chauka	chauka	sarimuju	nálukhúnt, charkuutya
Stand up	nintu koḷḷu	niddiru, lyettu	nitulle, meke	mklo	untuni	etti nillu	níssmu or nillmu	tedaníga, nittana
Star	*anc.* mínu; *mod.* chukki	mínu	mín	mín	dárái	mimu	súkka	sukú, sukum
Stone	kallu	kallu	kallu	kall	kall	kallu	vaḍḍi	tongi, kal
Straight	sariyáda, neṭṭage	neṭṭage	hasia neṭṭu	...	saruta	nére	samme	tukvá, sarko
Strike	hoḍe	huidane, hui	puigabe, puiye	puisbini, buro	kàkuni	poyu	véhmu	jún, jiana
Sun	*anc.* pallili; *mod.* hottu	hottu	potte	birsh	portu	néra	vélá	suraj, suryal, din
Sweet	si	sí	se	dijati	sípe	moupa	nakné	mingatá, mingul
Take	takkoḷḷu	togi	veḍe	tegi, yettfo	dettoṇpuni	attutá	ómu	tará, wontona, yettale
Take away	oyyu	yettiunḍ, hogu	ett hogu	ett fo	konḍupopini	ottutoru	áhánaisalmu	oumaníga, wontona, woyalle
Tall man	udda	uddavà	ueddaman	nirigiál	uddáḷ	odaradu	lambaga-tanju or baḍḍiga-banju	jhangchomanda
Tell, relate	héḷu	hlegíne hlegu	peidibe, parrde	bindudverth bine, esht	paṇpini	pare, onnu	vesmu	wurkana, kantáua manjé
Ten	*anc.* pattu; *mod.* hattu	hattu	patte	paṭh	patt	pattu	doso	pada, dalm
That	adu	adu	adu	adu	av	adu	évi	hud, war wor
Theirs	avaradu	avaradu, avakaradu	avarade	avardu	ákuḷenau	aindadu	éárithi	oná—and, hon, wora, wura

PART II—(*Continued*).

English.	Canarese and dialects.				Tooloo.	Coorg.	Khond.	Gond.
	Canarese.	Badagah.	Kotah.	Todah.				
10	11	12	13	14	15	16	17	18
Then	ága, andu	aga	annale	ni	apaga	akka	ísséká	anni, ada
There	alli	alli	able	!at, ang	anchi ; auḷu ; aḷpa	alli	embá	hukkai
They	*anc.* avar ; *mod.* avaru	avaka	avare	avar adam	ákulu	avavu	iára jíḍá	hurk, wurk
Thin	teḷuvu	kuna	vottale	kinud	sabúra; telpu	tellanu	bada ayin inju	sirsí hattúr
Thine	ninnadu	ninnadu	ninnade	ninnadu	ninnau ; innau	nodadu	nínt'hi	niávu —triánd, niwá
Thirst	níraḍike	arupu	arthoje	nirchásti	bájel ; ásar	nitala	éski	yetaksátúr, wutki wusta
Thirty	múvattu	muvattu	muvatte	mubath	muppo	nuppadu	koḍéká dása	tis, tisa
This	ídu	avana	avane	avan	indu	idu	iri	yer (mas.) id (fem.)
Thou	*anc.* nin ; *mod.* nínu	ni	ni-ye, ni	ni	i	ninu	inu	imma, ismme
Three	múru	muru, (muḍu ?)	munde, (munḍe ?)	munḍu	múji	múndu	tinigoṭa	múnú, mund
Thus	híge, intu	háge	áte, angei	inkei, angei	incha	innano	éhingi	ihúm
Tiger	*anc.* puli; *mod* huli	huli	pujje	bursh	pili	nari	krádi	púlli
To	ge, kke	ga	ge	ge	k ; g	—ku, —ge	ku-ki	baina
Today	íhottu	indu	inde	édu	ini	indu	nénjń	naind, naiú
Tomorrow	náḷe	nale	nalke	belkash	elle	náḷe	vié	nadi ningai
Tooth	*anc.* pallu ; *mod.* hallu	hallu	palle	parsh	kúli	pallu	paḍḍu (sing.) ahámu or palka (pl.)	polk, palspalk (pl.)
Tree	giḍa, mara	mora	marame	maen	mara	mara	mránu (sing) mraka (pl.)	mare mará
Twenty	ippattu	ibbatta	irváde	evoth	irvo	iravadu	kóḍé	bisa
Two	eraḍu	yeraḍu	yeḍe	eḍ, a-eḍ	raḍḍ	danḍu	ri	ranu, rand
Ugly	andagéḍi	holla	máse	ádádi	parludántinau ; kule	chái-illádu	sanjaside sonjabasdhe	búrotá—manda, chokathilli
Understand	tiḷi	aridane, aridiru, aridutto	arsibe, arsulle	arth, bine, aridir	teriyuni	ari	punba	pútte
Village	*anc.* paḷḷi ; *mod.* haḷḷi, úru	haṭṭi	paṭṭi	haṭṭi, úr	úru	uru	náju (sing.) naska (pl.)	nar, nák (pl.)
Wake	eççattiru	yleddane, yechari keiru	mekikene, yécharagiru	eḍaderth bini, vorigadi yecharichagir	eççerige-ḍuppuni	eççira	tija	jagemán, chaitoana
Water	níru	niru	nire	nir	nír	níru	sídru	yer
We	*anc.* am ; *mod.* návu	ye-ngal ye-ngla	ye —ngi	am, em	enklu	enga	ámu	ámot
Weariness	daṇuvu	salupu	salupu	...	daṇu	daṇṇu	vaihit'he	dikmandatúr
Weep	aḷu	áltáne, lan	attube, áge	aṭṭhbini, aṭṭhti	arpini	moradu	rívá	aráto, adana, arana
What ?	éṇu	yena	yena	en	dáne	ennata	inna	bará —ánd, bang
When ?	yávága	yegva	yennale	etvan	épa	ekk	esseka	baska, vangapur
Where ?	elli	yelli	yeye	et	óḷu ; oḷpa	elli	embava estava	bugga vagá
Which ?	yávadu	yeadu	yedu	yádu	vavu	edu	esth'ha	bad
White	biḷí	belapu	velape	belpu	boḷdu	baltadu	lóngi	panguro, pandari
Who ?	yávanu	y —áru	áre	ár	ér	dáru	imbái	bor, boni
Why ?	yátakke, or yáke	yeka	yendea	áed	dáye ; dáyeg	ennani	annaki or annáḍeki	bass-áti, bárad, barri
With	—kúḍa, or —sangaḍa	—kóḍa	—s engaḍa	...	voṭṭugu ; voppa	—kúḍa	ké	sang
Within	oḷage	volage	úluli	ulf	uḷái	aḷḷu	lár	rappu, núpá mandar
Without	—illade	—allade	—allade	—allade	horatande ; ijjande	hortu	sidani	balhro, bigúr, bahro
Without, outside	horage	horasu	porenje	pormud	pidái	porano	rákátá	bahro bahiro mandar
Yam	...	mulinge	...	...	...	kalanji	gánḍikúna	naska-kangda
Ye	*anc.* nim ; *mod.* nívu	ning —la	ning-e	...	nikuḷu	ninga	iru	unde, immet
Yes	haudu	ha	ha	ha	and	akku	á	hiuge inge
Yesterday	ninne	ninne	ner	enner	kóḍe	ninnán-du	riesi	nadi nara, khai
Yours	nimmadu	ningadu	ningude	nimmadu, ningadu	nikkuḷenau	ningaḍu	miárit'hi	nia-hille, niwa, mima

APPENDIX No. XXVI.

KOLARIAN VOCABULARY.

NOTE.—*In this table the vernacular letters are spelt according to Appendix XXIII with the addition of a point under cerebral consonants.*

English.	Sowrah.	Gadaba.
1	2	3
Above	lanka	tomnyá
Air	ringe	orvóyi
And, also	......	mágis
Ant	taramal	gunálo
Anybody	bote, botegáni	láysyaṇ
Anything	jitagani	máḍisyaṇ
Arrow	kóla	vótya
As	......	minya
Bad	kinagu	yerro
Below	jayitá	alóm
Between	......	vomdi
Bird	onti	pidi
Bitter	asa	vusóm
Black	suibo	yissáy
Blood	míyamo	yingyam
Boat	donga	dóne
Bone	ajágña	sisyaṇ
Bring	pañgayiba	yindriṇ
Buffalo	bongarabom	bongtel
By	batí	bom
Cat	rámí	girím
Cold	boiboiningi, sayi vuḍede	rungo
Come	jáyeba	vullo
Cow	tangli	kittiyaṇ
Crooked	kokkade	sengdo
Crow	káká	gugya
Day	bothinandel	simmyá, ato
Dog	kencho	guso
Drink	gáté	yidi
Ear	luv	lintir
Earth	labo	tubo
Eat	gáté, jombá	sóm
Egg	adi, rásá	yinto
Eight	tamuji	umbarpunja
Elephant	rá	ro
Eye	amu	mo
Far	sangayi	sulóm
Fat	kerrili	kirígu, kirri
Father	uwá	apyáṇ
Fifty	bágukoḍi-galiji	gól
Fire	togi	suṇgól
Fish	áyo	aḍḍóm
Five	mollayi	mollai
Flat	sabjanako, samangaḍele	lekko
Flower	taraba	sari
Foot	aji	sussuṇ
Forty	bágukoḍi	vúnkhanḍi
Four	vunji	vún
From	sitholo, sari	kurseṇ
Give	tilisibba, tiya	bí
Go	mábá	vuyya
Goat	kime	gimme
Good	ampase	limmoka
Great	suda	muḍo
Green	......	pasuru
Hair	......	yigbo
Hand	sinam	titti
Handsome	ambasanate	limmokká or lekko
He	ani	tulóku
Head	abobumr, abumr	bó
Hear	anḍángá	voṇ

English.	Sowrah.	Gadaba.
1	2	3
Here	tenne	tennó
His	ani-nate	máyino
Hog	kimbo	gibbi
Horn	ajigna	derrin
Horse	kuḍata	kirtyá
Hot	toggayi	gepgév
House	suigau	dingyaṇ
How?	yanthi	yeránḍi
How much?	dite	aḍḍisugó
A hundred	molloyikoḍi	núru
Hunger	dolejan	kuddu
I	mayi	ni
In	logna	bó
Iron	lomá	vonchon
It	ani	túnu
Kill	kílisibba	oggóy
Laugh	mágnába	luḍḍo
Leaf	olá	volya
Lift up, raise	terida	lén
Light (not heavy)	tambá	liyá
Little	téte	khanḍiki
Long	jelo	tiyyír
Man	manḍra	lokku
Mine	gránate	noinyo
Monkey	karoyi	gusyá
Moon	vongá	arke
Mosquito	abubbo	kirigiṇ
Mother	ya	iyyoṇ
Mountain	baru	biroṇ
Mouth	tonam	tummo
Move, walk	yírba	amsu
Much	bari	longa
Name	vonneman	immi
Near	tuya	orbon
Night	togolo	tungól
Nine	tinji	umbarpunjamúy
No	yajja	vúre
(Do) not	ṭiggo	ayide
Now	nami	vá
Of	ti	móyi
Oil	miy yalo	sól
On	lanka	tomnyá
One	aboy	múy
Or	......	sá
Ours	moni-nate	neyno
Plantain	kinte	vusubullu
Raw	amegna	broluká
Red	je	beraiṇ
Ripe	agueunate	bullu
River	nayi	kindiya
Road	tangora	kungor
Round	gudi, solágundu	kundraṇ
Run	naḍam	dunga
Salt	basi	bitti
Seven	gulji	tíyírmúy
She	......	onnovón
Short	doyina	dille
Short man	doyina mandra	dille lokku
Silent, Be	kaḍangámá	pallaka, dukka
Sit down	gobá	laisá
Six	tudru	tíyír
Skin	wusál	isál
Sky	lanka	ákásam

English. 1	Sowrah. 2	Gadaba. 3	English. 1	Sowrah. 2	Gadaba. 3
Sleep	dúnebá	éngyá	Tiger	kina	gikkil
Small	sonna	menjem	To	tí	no
Snake	ja	buḍubu	Today	nangadini	yincho
So	kaninásan	tudi	Tomorrow	biyo	biyyér
Sour	aragna	suso	Tooth	ajágna	ginne
Speak	birdána	samona	Tree	anebagna	iggen
Square	onjimúlalankabagná, sagnádaku	simitirel	Twenty	bo-koḍi	......
Stand up	deḍibá	modá	Two	bá-gu	umbar
Star	tute	pottiṇ	Ugly	ambaste	nimmokávorá
Stone	arregna	birél	Understand	anḍángalayi	setya
Straight	barídako	seyndo	Village	gorajáng, ḍa	mungoṇ
Strike	teda	góy	Wake	dímego	moḍa
Sun	vuyu	sinje	Water	dá	deyyá
Sweet	mana	subbul	We	mo-ni	ney
Take	dema	ándí	Weariness	......	doyo
Take away	págná lá yírba	sogusiyyá	Weep	kamyite	borroda
Tall man	lanka mandra	tiyyir lóku	What ?	vongáḍo	máḍi
Tell, relate	appungá	sún	When ?	yenga	vonḍoyi
Ten	gal-iji (gel-iji ?)	umbarpunjaumba	Where ?	tengá	umbónó
That	ani	tu	Which ?	vongá	umbónó
Theirs	aninate	mayyino	White	palu	tatár
Then	namóde	akki	Who ?	bote	láyi
There	vodíte	tunno	Why ?	jitásamgná	mánipáy
They	ani	tuttómne	With	ruhá	bó
Thin	palapalasan	palasana	Within	alogna	vomidi
Thine	ammanate	nínno	Without	yéjja	uriyaguna
Thirst	araga	dárum	Without, outside	vó-ḍíte	lambo
Thirty	bokoḍigaliji	......	Yam	gane	targáy
This	ani	ténu	Ye	aman	pén
Thou	aman	ní	Yes	jáḍite	vóm
Three	yági	iggén	Yesterday	amanni	mindír
Thus	yettená	tudito	Yours	amannate	pénnu

APPENDIX No. XXVII.

ACCOUNT OF THE ORTHOGRAPHY AND PRONUNCIATION OF THE TAMUL LANGUAGE.

NOTE.—*In this appendix the transliterations are written according to Appendix XXIII with the addition of a point under cerebral consonants.*

Origin of the alphabet.—The character in which Tamul is now written is, along with the Grantham or character of the Tamul Brahmins for writing classical Sanscrit, derived originally from the Southern Asoca alphabet; though the steps of parentage are not very clear. See the foot-note on Dravidian written characters in the article on Ethnology, Vol. I, chapter I. The Tamul character is not in any way derived from the Sanscrit Devanagary.

Enumeration of the letters, and method of writing them.—The Tamul alphabet has 30 simple letters; as follows:—

5 short vowels.
அ, a, as in America.
இ, i, as in still.
உ, u, as in full.
எ, e, as in self, &c.
ஒ, o, as in long.

7 long vowels.
ஆ, á, as the sound in ah!
இ or ஈ, í, as the sound in reel.
ஊ, ú, as the sound in rule.
ஏ, é, as the sound in they.
ஓ, ó, as the sound in sole.
ஐ, ai, as the sound in height.
ஔ, au, as the sound in foul.

18 mute consonants.
க், k, as in king.
ங், n, as in long.
ச், sh, as in show.
ஞ், ñ, as in impugn.
ட், ḍ, pronounced hard.
ண், ṇ, do. do.
த், t, as in duty.
ந், n, as in no.
ப், b, and p.
ம், m, as in my.
ய், y, as in yarn.
ர், r, as in round.
ல், l, as in lap.
வ், v, as in vain.
ழ், a kind of zh.
ள், ḷ, pronounced hard.
ற், ṛ, as in cry.
ன், n, as in on.

The ங is never used with a vowel, but is always mute, except in the word இங்ஙனம், iṇṇanam, this place; and ஞ is used only with அ, ஆ, எ, and ஒ.

There is a letter, ஃ or ஃ, aitham, commonly called akkana, nearly corresponding to the German ch, as in licht; but it seldom occurs in common language.

The vowels, when subjoined to consonants, lose their initial form; as follows.

The short vowel அ, a, is inherent in every consonant, and is always understood, except where the mark ˙ shows, that the consonant is to be pronounced mute; thus: க is ka, ச, sha, ஞ, ña, ட, ḍa, ண, ṇa, &c., &c. The mark ° is seldom found in native writings.

The long ஆ, á, is changed into ா and affixed thus; கா, ká, சா, shá, ஞா, ñá, டா, ḍá, &c., except ண, ற, and ன, which receive the following form, ணா, ṇá, றா, ṛá, னா, ná.

The short இ, i, is changed into ி; thus: கி, ki, சி, shi, டி, ḍi, ணி, ṇi, தி, ti, நி, ni, பி, pi, மி, mi, யி, yi, லி, li, வி, vi, ழி, zhi, ளி, ḷi, றி, ṛi, னி, ni.

The long ஈ, í, is changed into ீ; thus: கீ, kí, சீ, shí, டீ, ḍí, ணீ, ṇí, தீ, tí, &c.

The short உ, u, is changed into ு or ு, or | ; thus: கு, ku, சு, shu, டு, ḍu, ணு, ṇu, து, tu, நு, nu, பு, pu, மு, mu, யு, yu, ரு, ru, லு, lu, வு, vu, ழு, zhu, ளு, ḷu, று, ṛu, னு, nu.

The long ஊ, ú, is variously changed, mostly into ூ, or ூ; as: கூ, kú, சூ, shú, டூ, ḍú, ணூ, ṇú, தூ, tú, நூ, nú, பூ, pú, மூ, mú, யூ, yú, ரூ, rú, லூ, lú, வூ, vú, ழூ, zhú, ளூ, ḷú, றூ, ṛú, னூ, nú.

The short எ, e, is changed into ெ, and prefixed to the consonant after which it is pronounced; as: கெ, ke, செ, she, டெ, ḍe, ணெ, ṇe, தெ, te, &c.

The long ஏ, é, is changed into ே, and is prefixed as the former; thus: கே, ké, சே, shé, டே, ḍé, ணே, ṇé, தே, té, &c.

The short ஒ, o, is changed into ெ-ா, the consonant being placed between them; as: கொ, ko, சொ, sho, டொ, ḍo, தோ, to, &c. In ண, ற, and ன, the form is thus: ணொ, ṇo, றொ, ṛo, and னொ, no.

The long ஓ, ó, is changed into ே-ா, with the same exceptions as the former; thus: கோ, kó, சோ, shó, டோ, ḍó, தோ, tó, &c. ணோ, ṇó, றோ, ṛó, and னோ, nó.

The long vowel ஐ, ai, is changed into ை, and is likewise prefixed; as: கை, kai, சை, shai, டை, ḍai, தை, tai, &c., except ண, ல, ள, and ன, with which ை is united; thus: ணை, ṇai, லை, lai, ளை, ḷai, and னை, nai.

The long vowel ஔ, is changed into ெ-ள, and the consonant put between; as: கௌ, kau, சௌ, shau, டௌ, ḍau, &c.: but it is usually written thus, கவு, kavu, i.e., kau, சவு, shavu, i.e., shau, &c. In the poetical Tamul and other native books, the distinction here observed between short and long vowels is usually not marked; both are written alike, as எ short and எ long; கெ short and கெ long; ஒ short and ஒ long; கொ short and கொ long, &c.; likewise the small stroke at the foot of the ர r, is not observed, but written the same as the characteristic of long ஆ, viz., ா.

Putting all the combinations together the Tamul alphabet may be said to consist of 247 letters; but the combined letters are more properly syllables than letters.

Additional Sanscrit letters.—Besides these letters, five letters are sometimes borrowed from the Grantham or

Sanscrit, viz., ஷ, sh, ஸ், ś, ஹ, h, ஜ, j, and க்ஷ, ksh. ஷ is used only with some vowels, as ஷ, sha, ஷா, shá, ஷி, shi. ஸ் is always mute. ஹ is not much in use. The Tamulians do not properly admit the use of these letters, and in words borrowed from the Sanscrit, change the ஷ and ஸ, when not mute, into ட; and, when mute, into the same consonant with which they are connected. Thus for புருஷன், they write புருடன், puruḍan, a man; for வருஷம், வருடம், varuḍam, the year; for கஷ்டம், கட்டம், kaṭṭam, distress; for நஷ்டம், நட்டம், naṭṭam, loss. The ஹ is expressed by க; thus for வாஹனம், the Tamulians write வாகனம், váganam, a vehicle.

Tabulation of the letters.—Here follows a list of all the Tamul letters, including for convenience the five from the Sanscrit :—

அ	ஆ	இ	ஈ	உ	ஊ	எ	ஏ	ஐ	ஒ	ஓ	ஔ
க	கா	கி	கீ	கு	கூ	கெ	கே	கை	கொ	கோ	கௌ
ங											
ச	சா	சி	சீ	சு	சூ	செ	சே	சை	சொ	சோ	சௌ
ஞ	ஞா					ஞெ			ஞொ		
ட	டா	டி	டீ	டு	டூ	டெ	டே	டை	டொ	டோ	டௌ
ண	ணா	ணி	ணீ	ணு	ணூ	ணெ	ணே	ணை	ணொ	ணோ	ணௌ
த	தா	தி	தீ	து	தூ	தெ	தே	தை	தொ	தோ	தௌ
ந	நா	நி	நீ	நு	நூ	நெ	நே	நை	நொ	நோ	நௌ
ப	பா	பி	பீ	பு	பூ	பெ	பே	பை	பொ	போ	பௌ
ம	மா	மி	மீ	மு	மூ	மெ	மே	மை	மொ	மோ	மௌ
ய	யா	யி	யீ	யு	யூ	யெ	யே	யை	யொ	யோ	யௌ
ர	ரா	ரி	ரீ	ரு	ரூ	ரெ	ரே	ரை	ரொ	ரோ	ரௌ
ல	லா	லி	லீ	லு	லூ	லெ	லே	லை	லொ	லோ	லௌ
வ	வா	வி	வீ	வு	வூ	வெ	வே	வை	வொ	வோ	வௌ
ழ	ழா	ழி	ழீ	ழு	ழூ	ழெ	ழே	ழை	ழொ	ழோ	ழௌ
ள	ளா	ளி	ளீ	ளு	ளூ	ளெ	ளே	ளை	ளொ	ளோ	ளௌ
ற	றா	றி	றீ	று	றூ	றெ	றே	றை	றொ	றோ	றௌ
ன	னா	னி	னீ	னு	னூ	னெ	னே	னை	னொ	னோ	னௌ
ஸ	ஸா	ஸி	ஸீ	ஸு	ஸூ	ஸெ	ஸே	ஸை	ஸொ	ஸோ	ஸௌ
ஷ	ஷா	ஷி	ஷீ	ஷு	ஷூ	ஷெ	ஷே	ஷை	ஷொ	ஷோ	ஷௌ
ஹ	ஹா	ஹி	ஹீ	ஹு	ஹூ	ஹெ	ஹே	ஹை	ஹொ	ஹோ	ஹௌ
ஜ	ஜா	ஜி	ஜீ	ஜு	ஜூ	ஜெ	ஜே	ஜை	ஜொ	ஜோ	ஜௌ
க்ஷ	க்ஷா	க்ஷி	க்ஷீ	க்ஷு	க்ஷூ	க்ஷெ	க்ஷே	க்ஷை	க்ஷொ	க்ஷோ	க்ஷௌ

Classifications of the letters.—Besides the common division into vowels, mute consonants, and combined vowel-consonants, the Tamul grammarians have divided the 18 pure Tamul consonants into six hard, six soft, and six middle letters.

The six hard sounding letters are called வல்லின எழுத்து, vallina ezhuttu; they are க, ச, ட, த, ப, ற.

The six soft sounding letters are called மெல்லின எழுத்து, mellina ezhuttu; they are ங, ஞ, ண, ந, ம, ன. These are the six nasals in fact each corresponding to one of the above six vallina consonants.

The middle letters are called இடையினவெழுத்து, idaiyina ezhuttu; they are ய, ர, ல, வ, ழ, ள.

The Sanscrit grammarians take each of the first five vallina as the head of a class; க guttural, ச palatal, ட lingual or cerebral, த dental, and ப labial; and add a sixth class of sibilants. But though there may be corresponding sounds in Tamul for these six classes, they are not recognized in the alphabet.

Names of letters.—To express the names of the letters na is added to every short letter, and vena or yena to the long; thus:—

அ,	a, is called	ána,	க,	kána,	ச,	shána.
இ,	i,	„	ína,	கி,	kína,	சி,	shíena.
உ,	u,	„	úna,	கு,	kúna,	சு,	shúna.
எ,	e,	„	éna,	கெ,	kéna,	செ,	shéna.
ஒ,	o,	„	óna,	கொ,	kóna,	சொ,	shóna.
ஆ,	á,	„	ávena,	கா,	kávéna,	&c.	
ஈ,	í,	„	íyena,	கீ,	kíyena,	&c.	
ஊ,	ú,	„	úvena,	கூ,	kúvena,	&c.	
ஏ,	é,	„	éyena,	கே,	kéyena,	&c.	
ஐ,	ai,	„	aiyena,	கை,	kaiyena,	&c.	
ஓ,	ó,	„	óvena,	கோ,	kóvena,	&c.	
ஔ,	au,	„	auvena,	கௌ,	kauvena,	&c.	

But among scholars கரம், karam, is usually added to every short letter, and காரம். i.e., káram, to every long letter; thus:

அ, a,	is called	அகரம்,	agaram.
க, ka,	„	ககரம்,	kagaram.
இ, i,	„	இகரம்,	igaram.
கி, ki,	„	கிகரம்,	kigaram.
உ, u,	„	உகரம்,	ugaram.
கு, ku,	„	குகரம்,	kugaram, &c., and
ஆ, á,	„	ஆகாரம்,	ágáram.
கா, ká,	„	காகாரம்,	kágáram.
ஈ, í,	„	ஈகாரம்,	ígáram.
கீ, kí,	„	கீகாரம்.	kígáram, &c.

A letter is called எழுத்து, ezhuttu. A vowel is called உயிரெழுத்து, uyirezhuttu, the letter of life, because it gives life to the consonant. A consonant is called மெய்யெழுத்து, meyyezhuttu, which means the letter of the body; because the consonant is the body of the vowel. The consonant is called also ஒற்றெழுத்து, i.e., oṭṭezhuttu, which has the same meaning. The vowel-consonant is called உயிர்மெய்யெழுத்து, uyirmeyyezhuttu, which means letter of body and life, because it consists both of a vowel and a consonant. A short vowel is called குற்றுயிரெழுத்து, or குறிலுயிரெழுத்து; and a long vowel, நெட்டுயிரெழுத்து.

Mode of writing.—Tamulians, in writing, do not leave any space between the words, but connect all the words even of a whole discourse; thus: மனிதர்கள்நல்லவர்களல்ல = manithargaḷ + nallavargaḷ + alla.

Pronunciation.—The general pronunciation of the letters has been already pointed out at head. There are however numerous exceptions; some radical, some less so. The variations in sound are not quite so numerous as they are in English, but the case is analogous.

The short vowel அ, a, before ர, ல, ள, and ண, at the end of polysyllabic words, is not exactly pronounced like 'a' mentioned in the alphabet, but somewhat like 'e,' as in men; thus:

அவர், they, pronounce aver, not avar.
சொல்லல், a saying, pronounce shollel, not shollal.
மரங்கள், trees, pronounce marangel, not marangaḷ.
அவன், he, pronounce aven, not avan.

The vowels இ, i, and எ, e, receive a much deeper sound than they have ordinarily, before ட, ண, ழ, ள, and ற. Thus the இ, is sounded like the French u, or like the 'ü' in the German Mühle; and the எ like the French 'eu,' or like the 'ö' in the German "böse;" thus: வீடு, a house, pronounce vüḍu; but வீதி, (street), víthi.
பெண், a woman, pronounce pöṇ; but பேசு, (speak), pésu.
கீழ், under, pronounce küzh.
தேள், a scorpion, pronounce töḷ.
பிறக்க, to be born, pronounce püṟakka. This difference need not necessarily affect transliteration, but the traditional English way of representing such sounds gives a better idea of them than the new continental way which is too inelastic.

எ when initial is sounded like 'ye;' and ஏ like 'yé.' Thus ஏரி a tank, is 'yéri' and not 'éri.' The same remark as to transliteration applies here as in the last case.

Initial இ and ஈ when followed by a cerebral or palatal (taking the usual definition of these) are similarly preceded by 'y.' The same remark applies as to transliteration.

The vowel ஐ, ai, is, in monosyllabic words, pronounced like the English diphthong ei, as:

கை, the hand, pronounce kei.
மை, ink, pronounce mei.

But when a non-monosyllabic final it is 'ay' as in 'pay.' The continental transliteration obliterates these fundamental properties of the Tamul. The vowel ஐ is not a diphthong compounded of அ and இ, as it is in Sanscrit; but a more or less pure vowel. It has however been retained as 'ai' in Appendices XXII, XXIII, and XXIV.

உ final is always pronounced very slightly, unless in a dissyllable where the first syllable is short by both nature and position. It scarcely does more than give enunciation to the last consonant. This peculiarity of the Tamul language is generally neglected by Europeans. In Canarese and Teloogoo it has been corrupted by contact with the Sanscrit:—

மாடு, ox, pronounce máḍü, or máḍ.

The letters, க, k, and ப, p, are at the beginning of a word pronounced hard or surd as in the list at head; but in the middle, when single, they are pronounced soft or sonant. Thus க is sounded like the g in good with a very slight aspirate; or even something like the German 'ch.' ப is pronounced like b. As follows:—

கண், the eye, pronounce kaṇ; பகல், the day, pronounce paghel.
பகை, hatred, pronounce paghai; கொம்பு, horn, pronounce kombü.

But if they occur double in the middle of a word, both are pronounced hard, as:

பக்கம், the side, pronounce pakkam.
இருப்பு, state of being, pronounce iruppü.

The rule for த is the same, with one special variation. When initial single it is pronounced 't' as in the list at head; when single and medial and following a consonant, as 'd' soft; but when single and medial and between two vowels, as 'th' in 'thus,' still softer:—

துணி, a cloth, pronounce tuṇi; but இந்த, this, pronounce inda ('d' soft); and காது, the ear, pronounce káthü. The 'th' of the English 'thing' which is yet softer, is not represented in Tamul.

Again when த occurs double in the middle of a word, it is pronounced hard:—

கத்தி, a knife, pronounce katti ('t' soft).

The usual treatment of the important த sounds at the hands of Europeans is equally barbarous with that mentioned above in the case of final உ. இது ithü, or almost ithi, is often pronounced iḍoo. The special Dravidian த sound between two vowels has been corrupted in Teloogoo and Canarese by contact with the Sanscrit, but remains in Tamul.

As to the transliteration of these three letters க, த, ப, if the above rules are not followed in the transliteration almost in their entirety, the identity of the word will be disguised beyond recognition.

The letter ச when initial is indicated in the list at head as 'sh;' but it is a special Dravidian sound, and sometimes approaches 'ch.' Thus சின்ன, small, is often written chinna, instead of shinna. When medial and single and not following ட் or ள் or ஞ், it is a plain sibilant s. When medial and single and following ட் or ற் it is ch. When medial and single and following ஞ் it is j:—

மாசம், a month, pronounce másam.
மாட்சிமை, excellence, pronounce mádchimai.
முயற்சி, effort, pronounce muyarchi.
பஞ்சு, cotton, pronounce pañjü.

When ச is medial and doubled it is a strong ch; represented in this work by çç. அச்சு, print, pronounce aççü.

These variations of ச must be represented in transliteration, for the reasons given regarding க, த, ப.

The difference of sound between ங, ஞ, ண, ந, and ன, is so nice, that it can only be learned from the mouth of a native. When they are mute, the following letters follow them, as being most congenial to their sound, viz.,

ங,	is followed by	க.
ஞ,	„	ச.
ண,	„	ட.
ந,	„	த.
ன,	„	ற.
Also ம,	„	ப.

Thus: சங்கம்,	assembly,	pronounce	shangam.
மஞ்சள்,	yellow,	„	mañjal.
கண்டம்,	a part,	„	kaṇḍam.
சாந்தம்,	meekness,	„	shándam.
ஒன்று,	one,	„	onṟü.
அம்பு,	an arrow,	„	ambü.

The difference of pronunciation between ர், ழ், and ற், and between ல், and ள், must likewise be learned from the mouth of a Tamulian. For ழ், there is no proper sound in English or any other European language; it is a

mixture of r and l, these being made to imperceptibly coalesce by turning the tongue upward to the roof of the mouth. The pariah class mispronounce this Dravidian sound like ள and it seems to be in a measure foreign to them. But அழி, means destroy, and அளி, give. ர may be called a soft or single r; but ற a hard, or double one. So also ல் is pronounced softly, but ள், strongly :—

பேர்,	name, pronounce		pér.
பேறு,	birth,	,,	pörü.
வேலை,	work,	,,	vélai.
வேளை,	time,	,,	vöḷai.

A double ற்ற is not pronounced like rr, but like tr; though the r is sounded rather softly and quickly; thus :

குற்றம், guilt, pronounce kuṭram, almost kuṭṭam. This must be reproduced in transliteration.

ன்ற, is pronounced ḍṛa, as,

என்றான், he said, pronounce enḍrán. This may or may not be reproduced in transliteration.

Double ட்ட, is pronounced like ṭṭ, as,

கேட்டேன், I heard, pronounce köṭṭén. This must be reproduced in transliteration.

The pronunciation of a long vowel or double consonant, requires twice the time necessary for a short vowel or single consonant. The natives call the length of time for the pronunciation of a short vowel, or of a single consonant, மாத்திரை, máttirai, i.e., a measure, which they define by a single twinkling of the eye, or a snap of the fingers; accordingly, a long vowel or a double consonant requires two such measures. A strict observance of this rule is of importance, as a neglect of it will produce misunderstanding ; thus,

பதம், patham, means a word ; but,

பாதம், pátham, means a foot.

Every long vowel, or every compound syllable, by which is meant a syllable composed of two consonants and a vowel, has naturally a particular emphasis or accent. Thus in காது, káthu, the ear, the syllable கா has the stress ; in சொல்லுகிறேன், shollugiṟén, I say, the syllables சொல் and றேன் have the stress.

Besides this natural emphasis, Tamul syllables have no accent. In words, consisting of two or more short syllables, every such syllable is pronounced alike.

Representation in Tamul of words taken direct from the Sanscrit.—The modifications here are extensive, the genius of the two languages being widely opposed. The principal modification arises from the Tamul being averse to consonants in juxtaposition. Thus சூக்ஷ்ம, shúkshma, subtlety, becomes சூட்டுமம், shúṭṭumam. Changes of letters are constant. Thus பக்ஷி, pakshi, a bird, becomes பக்கி, pakki. Words beginning with r, or l, in Sanscrit take an initial இ, or உ, in Tamul; as இரத்தினம் for रत्न, and உலோகம் for लोक. Au of the Sanscrit becomes அவு; as அவுடதம் for औषध. To proceed further with this subject would require an analysis of the whole of Tamul etymology. The Dravidians have been as intolerant of Sanscrit forms to words, as the Sanscrit authors have been of Tamul forms. It is an undecided question whether in transliterating, the Tamul form should be taken, or what is known to be the original Sanscrit form.

APPENDIX No. XXVIII.

NOTE ON THE OLD DRAVIDIAN LETTER ழ.

This letter represents a special sound in the Dravidian dialects, now retained only in Tamul and Malayalam. It is a mixture of *j*, *l* and *r*, and is best pronounced by the pure Tamul races, the Vellalars and Moodelliars. The Todahs however also enunciate it with some fulness.

The special nature of this letter is best exemplified by enumerating the attempts hitherto made to represent it in a Roman dress. Thus :—

Ziegenbalg, 1714, employs...	rl and rhl
Beschi, 1728	lj
—, pref. of Sen Tamil grammar (Babington's translation) ...	zj
Ellis, 1816	zh
Anderson, 1819 (when medial).	r
———— (when final) ...	ḻ
Babington, 1822, Trans. Beschi's Sen Tamil grammar	zh
Rhenius, 1834, "a kind of" ...	rl
Graull, 1854, in the Keivalyana-vaneeta	l
Wilson, 1855, Glossary	l in Tamil. r̤ in Malayalum.
Caldwell, 1856, Comp. grammar	ṛ
Pope, 1856, First Lessons, "something like the Welsh ll" with the force of rrr	r
—1859, Tamul hand-book do. do. and	r
B. H. Hodgson, 1856	zy
The French Jesuits	xh

Beschi describes it as being "quoque aliud *l*, quod crassiori sono, reflexâ omnino ad interiorem palati partem linguâ, pronunciatur;" adding in a note, "in aliquâ istius "regionis parte sonat quasi *j*."

Rhenius observes, "for ழ we have no proper sound in "English or any other European language; it is a mixture "of *r* and *l* imperceptibly coalescing by turning the tongue "upward to the roof of the mouth." Thus he writes எழுத்து 'erloottoo.'

According to Dr. Caldwell :—"this distinctive Dravidian "semi-vowel is found in the Tamil alone. Its sound resem- "bles that of the English *r* after a long vowel, as in the "word 'farm,' but it is pronounced further back in the "mouth, and in a still more liquid manner. It is some- "times expressed in English books as *zh* or *rzh*, but this "is merely a local pronunciation of the letter, which is "peculiar to the northern district of the Tamil country: "it is at variance with its affinities and its interchanges, "and is likely to mislead the learner. *ṛ* is the only "Dravidian consonant which is pronounced differently in "different districts. In the southern districts of the "Tamil country, it is pronounced by the mass of the "people, exactly in the same manner as *ḷ*, which is the "letter invariably used instead of *ṛ* in Canarese. Between "Tanjore and Pondicherry, it is softened into *rzh*, or *zh*; "and in Madras and the neighbourhood, this softening "process has been carried to such a length that in the "speech of the vulgar, *ṛ* has become a silent letter. The "Telugu, which commences to be spoken about two days' "journey north of Madras, has lost this letter altogether. "Generally it uses *ḍ* instead, as the Canarese uses *ḷ*, but "sometimes it uses no substitute, after the manner of the "vulgar Tamil of Madras. Looking at such Telugu words "as 'kinda,' 'below,' answering to the Tamul 'kîrnda,' "and 'vingu,' 'to swallow,' answering to the Tamul "'virungu,' we cannot but suppose that the Telugu had "this letter originally, like the Tamil, and that it lost it "gradually through the operation of that softening process "which, in the colḷoquial Tamil of Madras, 'converts' "kîrê, 'below,' to *kîê*."

Dr. Pope considers the Tamul *r*, *n* and *t*, to possess each three sounds, a dental, a palatal, and a cerebral, while to *ḻ* he allows only two, a palatal and a cerebral. In pursuance of this analogy he assigns to ழ the cerebral place of *r*, and gives the following rule for its pronunciation :—"apply the tip of the tongue, as far back as you can, to the palate and pronounce a rough *r* in which a sound of *z* will mingle. In the south, unable to articulate this letter, they use a strong *ḷ* (ள) instead. In the north, in the same way, they use ய (*y*) for ழ."

The only conclusion to be drawn from these various statements is that the ழ represents a sound altogether "sui generis." As Professor Wilson expresses it, "the enunciation is singularly obscure, and cannot be precisely represented by any written characters."

On the other hand this sound is not peculiar to the Dravidian dialects. It is found to prevail equally throughout the aboriginal Indo-Chinese tongues of the Himalayas an Tibet. Hodgson refers to it repeatedly. "The second *z*," he observes, "represented by me by *zy* and equal to the French *j* in *jeu*, is the same with the Tamil *zh* of Ellis and Elliot. It is a very prevalent sound, and equally prevalent is the French *u* or *eu* in *jeu* aforesaid. Neither is ever heard from an Arian mouth, &c." Even among the aborigines, he adds, the influence of Aryan vocables is gradually bringing them into disuse. And this is also the case in the south, where, from the same cause, they have gradually disappeared from the Teloogoo and Canarese.

It is a matter of interest to observe the expedients employed in Teloogoo and Canarese to replace the absence of this characteristic sound, in words of common origin. The following is a list of words taken at random. The words are transliterated according to App. XXIV. with the addition of a point under the cerebral consonants :—

English.	Tamul, employing ழ.	Malayalam, employing ഴ.	Teloogoo, not employing ழ.	Canarese, not employing ழ.
A fowl.	கோழி kózhi.	കോഴി kózhi.	కోడి kóḍi.	ಕೋಳಿ kóḷi.
Seven.	ஏழு ezhu.	ഏഴു ézhu.	ఏడు éḍu.	ಏಳು éḷu.
Seven hundred.	எழுநூறு ezhunúru.	ഏഴുനൂറ് ézhunúr.	ఏళ్నూరు éḷnúru.	ಏಳುನೂರು Eḷunúru.
Pottage.	கூழ் kúzh.	കൂഴ kúzha.	కూడు kúḍu.	ಕೂಳು kúḷu.
Rain.	மழை mazhai.	മഴ mazha.	వాన vána.	ಮಳೆ maḷe.
A circle.	சுழி shuzhi.	ചുഴി chuzhi.	సుడి suḍi	ಸುಳಿ suḷi.
The Pandanus plant.	தாழை tázhai.	താഴ tázha.	—	ತಾಳಿ táḷi.
A cubit.	மொழம் mozham.	മുളം muḷam.	మూర múra.	ಮೊಳ moḷa.
Waste.	பாழ் pázh.	പാഴ pázha.	పాడు páḍu.	ಹಾಳು háḷu.
Down, below.	கீழ் kízh.	കീഴെ kízhe.	కింద kinda.	ಕೆಳಗೆ keḷage.
Wax.	மெழுகு mezhuku.	മെഴുക mezhuka.	మయినము mayinamu.	ಮೇಣ méiṇa.
To live.	வாழு vázhu.	വാഴു vázhu.	వాడు vádu.	ವಾಳು váḷu.
To plough.	உழு uzhu.	ഉഴ uzha.	—	ಉಳು uḷu.
Fruit.	பழம் pazham.	പഴം pazham.	పండు panḍu.	ಹಣ್ಣು haṇṇu.
A plough share.	கொழு kozhu.	കൊഴ kozha.	కర్రు karru.	ಕಾರು káru.

From these examples, it appears that the Canarese substitute a hard *ḷ*, the Teloogoos generally a hard *ḍ*, and sometimes an *ḷ*, which is occasionally softened away, as in the words for 'wax,' below, 'fruit,' &c.—sometimes eliding it altogether, as in the word முழங்கால் ('muzhangál,') the knee, which becomes మోకాలు ('mókálu.'). So completely has the letter disappeared from Teloogoo, that the Vadagala Veishnavas of Telingana, who are obliged to repeat daily portions of the sacred verses composed by the twelve Azhwars which they commit to memory from versions written in Teloogoo characters, finding no letter to represent ழ have adopted the expedient of restoring it bodily in its original Tamul shape.

To revert to the question of the proper roman equivalent for ழ notwithstanding the opinions of Bishop Caldwell and Dr. Pope, it does not seem necessary to concur in their view of considering the latter to be an *r*. The author of the Sabdamanjary, the Tamul version of Panini's phonetic grammar, affirms the identity of ழ and ள, which he illustrates by the following examples:—

உழுந்து (uzhundu) becomes உளுந்து (uḷundu) a kind of pulse.

குழகம் (kuzhagam) do. குளகம் (kuḷagam) a verse.

சோழம் (sózham) do. சோளம் (shóḷam) and சோடம் (shóḍam) a kind of grain.

His words are ழ,ள, யோரபேத, "there is no difference between ழ and ள." The original dictum of Panini, from which this is adapted, runs thus: डलयोरभेदः "between *ḍ* and *l* there is no difference." ழ then is more l than r. The letter is however in reality an original Dravidian sound of a peculiar nature. It has gradually become obsolete from its incompatibility with the Aryan phonetic system. It is a point of enquiry how far a similar letter is to be traced in other languages. The sign adopted in the present work for representing this letter is the special sign zh.

APPENDIX No. XXIX.

ANALYSIS OF COMMON GEOGRAPHICAL NAMES IN THE TAMUL COUNTRY, SHOWING THE EXTENT TO WHICH THEY ARE INDIGENOUS, WITH OTHER PARTICULARS, ARRANGED ALPHABETICALLY.

NOTE.—*In this appendix the transliterations are spelt according to Appendix XXIII with the addition of a point under cerebral consonants. The indications of language in brackets show whether the name is indigenous or not. The places here shown were originally selected without design from the portions of the Tanjore and Trichinopoly districts where Brahmin colonization has been most frequent.*

Aḍaiyár (*Tam.*). 'Choked river.' From aḍai to be choked, as river by sand. Compare the Adyar River at Madras.

Áduthuṛai (*Tam.*). 'Sheep-ford;' from áḍu = sheep, and thuṛai = a ford, passage or resort.

Ágaram (*San.*). A common form of agrahárám, which the Tamuls cannot pronounce properly. A street, or village, of Brahmins; also a dwelling, mansion, place. Perhaps connected with Sanscrit ajira, (*Lat.* ager.).

Ágásaveḷi (*Mixed*). From ágásam, the sky, air, and veḷi, the open, a plain, desert.

Aiyyanguḍi (*Tam.*). Brahmin's abode. Veishnava Brahmins are called Ayyangár, whereas Sheiva Brahmins are called Ayyar. Aiyyan = father, elder, preceptor.

Akkirappu-thúr (*Mixed*). Akkira-puthu-úr = chief-new-town.

Akkiráram (*San.*). For Sanscrit agrahárám, a royal gift of land to Brahmins; a Brahmin village or street. Having no aspirate the full Tamul form is akkiragáram.

Akkiráttúr (*Mixed*). 'Principal Áttúr.' Áttúr is a frequent place-name in Southern India, commonly applied to a village by a river (áṛ or áṛu). In combination áṛ becomes áṭṭ, as Áṭṭangarai = river side.

Álanguḍi (*Tam.*). 'Banyan-habitation;' ál the Ficus Indica or Bengalensis, and kuḍi a dwelling. This is one of the commonest place-names in south-east India. Sanscrit authors however derive the name from álam the deadly poison which arose at the mythical churning of the milk-ocean and was swallowed by Shiva. Even the Tamul poet Kálaméghan in a complimentary verse on the Álangudi Temple styles Shiva, Álanguḍiyan = 'poison-drinker.'

Aḷasikkuḍi (*Mixed*). 'Gift-hamlet;' Sanscrit name Upathánappuram. The land in this case was a gratuitous endowment for a Shiva Temple built by a Chola ruler.

Álattúr (*Tam.*). 'Banyan-tree village.' The álai-maram is the Ficus Indica or Bengalensis. See Álanguḍi.

Aḷavéli (*Tam.*) From aḷam a salt field or marsh, and véli meaning a wall, hedge, or a certain quantity (about 5 acres) of land. With aḷam, salt, &c., compare Gr. ἅλς = the salt sea, *Lat.* sal = salt, and *Eng.* alum.

Amaravatham (*Mixed*). Common usage for Amarappákkam, or more fully Amarappákkatteruvu.

Ámbalappaṭṭu (*Tam.*) From ámbal = lotus, and paṭṭu = a place.

Ammanguḍi (*Tam.*). 'Goddess-abode,' = Hindostany Dévighar.

Ammáppéṭṭai (*Tam.*). Also called Ammá-kóvil-paṭṭu = Goddess-temple-town. Péṭṭai means bazaar, market, &c. Pattu (or paṛṛu) means a village, parish.

Anaik-karai (*Tam.*). 'Weir-bank;' a common term in the southern districts for an anicut. Aṇai = an artificial bank, dam, bund; karai = a natural bank, shore.

Anaik-koṭṭam (*Tam.*). Koṭṭam = stall. 'The cattle-sheds at an anicut.'

Angaráyanallúr (*Tam.*). 'Angaráya's good town.'

Annavásal (*Mixed*). 'Food-port.' Anna = boiled rice, and vásal = a gateway, entrance, or port. A place where food is distributed in charity. This place is also named anna-sattiram and anna-sálai; also annakkuppam.

Aṛa-kkaṭṭaḷai (*Tam.*). 'Charitable endowment;' from aṛam = charity, and kaṭṭaḷai = a grant, order.

Arasa-ppaṭṭu (*Tam.*). Peepul village, from Arasu the Peepul tree. Compare the Teloogoo Ráyicheṭṭu or Rágimánu.

Arasilaiyáṛu (*Tam.*). The large river channel of the Cauvery, close to Combaconam on the south side.

Arasúr (*Tam.*). 'Town of the King.' This is another name of the Royal Munnargoody 10 miles south-west of Chidambaram, to distinguish it from Munnargoody a few miles distant. Two places called Munnargoody, 40 miles south, are distinguished as Rása-Mannárkkuḍi, and Káṭṭu-Mannárkkuḍi; or Royal and Wild Mannárkkuḍi.

Arittuvári-mangalam (*San.*). Arittu = 'green;' vári = water-course.

Áṛkkáḍ or **Árugáḍu** (*Tam.*). Six forests (in *San.* Shadáraniyam); the abode of six Rishis in former days. There are several places of this name in the southern districts besides the town of Arcot near Vellore. One of these in Tanjore would correspond better than that with Harkátu of Ibn Batuta who reached it the first evening of his march inland after landing from Ceylon apparently on the shallow coast of Madura or Tanjore. The ἀρκατοῦ βασίλειον σῶρα of Ptolemy is generally supposed to be the Arcot near Vellore.

Áṛusuttippaṭṭu (*Tam.*). 'River surrounded village.' But Áṛusutti is also a title amongst the Kallan tribe.

Athivírarámappaṭṭanam (*San.*) Athi - Víra - Ráma (Great - Hero - Ráma); Sanscrit name given to one of the Tamul Pandyan rulers of Madura. The place lies at the head of Palk's Bay, the Argaric gulf (Sinus Argalicus).

Áṭṭangarai (*Tam.*). Said to be the 'Αγχειρόυπολις of Ptolemy. 'Αγχείρου however resembles Aṇaikkarai, the ancient name of Adam's Bridge, so called by the Tamuls as being the great bridge or causeway. The early Arab voyagers called it (and the country beyond and about it) Ma'abar which in Arabic signifies ferry, ford, passage. In the middle ages, before Paumben was separated from the main land by the storm that breached the famous causeway, there is

Áttangarai (*Tam.*)—(*Cont.*). said to have been a great city, remains of which are still to be seen on the spit of sand opposite to Paumben.

Áttanúr and Áttúr (*Tam.*). 'River-village.' Áttúr is a common form; from áṛu a river, which becomes átt- or átr- in combination; as in Áttangudi = river-hamlet, and Áttangarai = river-bank. One Áttúr in a southern talook has also a Sanscrit name, Nadippura = river-town.

Ávúr (*Tam.*). A decayed town 5 miles south-west of Combaconam with a temple and a legend regarding a cow (á).

Ayyávádi (*Tam.*). Herdsman's enclosure. Áyan = a herdsman, from á = a cow.

Bhuvanagiri .. See Puvanagiri.

Calimere .. See Kaḷḷimédu.

Caricaul .. See Káraikkál.

Chelambaram Anglo-Indian usage for Shithambaram. The natives also miscall it Shittambalam.

Éri (*Tam.*) A large irrigation tank, or reservoir; a sheet of water kept at a higher level than ordinary. A common affix. Érppu = ascent; éṇi = a ladder; éndal = highness. Also compare éṛṛu = raise, lift, and éṛṛam or éttam a water-lift (Tel. étamu); and éttu = lift, height, &c. The Tamul ér = plough, may be so called because it raises the soil. Compare the Greek ἀρόω = plough, coupled with αἴρω = raise.

Erumai-ppa-ḍugai (*Tam.*). 'Buffalo flat.' From Erumai = a buffalo, and paḍugai = a low-lying tract near a river or tank, where the cattle are collected after grazing.

Eruvádi (*Tam.*). 'Cattle pen;' from eru = cattle (compare erumai = buffalo), and vádi = enclosure, yard.

Iḷan-gáḍu (*Tam.*). Iḷaiya, iḷa = young; káḍu = wood, jungle. The Sanscritized name Bálavanam means similarly 'young wood.'

Inippiriyá-vaṭṭam (*Tam*). Inippiriyá = 'separation of sweetness.' See Vaṭṭam.

Iñji-kkollai (*Tam.*). 'Green-ginger field.'

iruppu (*Tam.*) A residence, abode, dwelling. A common suffix, as in Kuḍiyiruppu = dwelling house, habitation. From iru, sit, be, remain.

Káççámbaḷ-ḷam (*Tam.*). 'Káççá-hollow.' The Káççá shrub, Memecylon tinctorium, grows wild in South India and fills the jungles. Káççán-bákkam, Káççán-kád, Káççán-kóṭṭai, Káccán-kuṛiççi, &c., are common in South Arcot district.

Kaḍagam (*San.*). 'Bracelet,' 'ring.' Other villages are called Káppúr from káppu = a bangle.

Kaḍalanguḍi (*Tam.*). From kadal = the sea. Several places are so called on the East Coast though now some distance inland; showing changes in the coast level.

Káḍu (*Tam.*). A wilderness, jungle, untilled field, thicket, wild, forest; as in Árukkáḍu (Arcot). Or as a prefix Káṭṭu, e.g., Káṭṭu Mannárk-kudi, Káḍuveṭṭán, &c. Káḍu is applied to a scattered collection of things; as, kuḍikkáḍu a hamlet (grove of huts); neruppukkáḍu a conflagration (a forest of flame); veḷḷakkáḍu a general flood.

Káḍuveṭṭán guṛiççi (*Tam.*). 'Forest-cleared hamlet.' Veṭṭu = cut, dig, strike. Kuṛiççi = a small hamlet. Káḍuveṭṭi was a title of one of the Chola princes.

Kaḷañjéri (*Tam.*). 'Threshing-floor village.' Kaḷam = a threshing floor, also a battle field. In many parts of Southern India where wet cultivation prevails the threshing floor is the only dry spot to be found, and is usually the best site for a new hamlet.

Káláñjiméḍu (*Tam.*). 'Mushroom-mound.'

Kaḷappáḷaga-ram (*Mixed*). See the next.

Kalappálisu-varan (*Mixed*). The idol here is said to be allotted a kalam measure of milk (pál) daily.

Kallángaṛai (*Tam.*). 'Stony bank.'

Kaḷḷappúṇḍi (*Tam.*). 'Kaḷḷan's Grove.' The Kaḷḷar were formerly a lawless tribe in the Trichinopoly, Madura, and Tanjore Districts. Kaḷḷan = 'thief' in Tamul.

Kaḷḷiméḍu (*Tam.*). Point Calimere. 'Cactus mound;' but there is no cactus now. It is commonly called Kóḍikkarai = 'Point Shore.' It is supposed to be the "Kalligicum" Promontory of ancient geographers. Pliny gives Calingon.

Kambaiyanat tam (*Tam.*). Kambaiyan is one of the many titles amongst the Kaḷḷar. Nattam = a settlement, village, or plantation. Naḍu = to plant, set.

Kaṇḍa or kaṇḍán (*Tam.*). Derivation unknown. See Koṇḍán.

Káṇḍárak-kóṭṭai (*Mixed*). For Gandharva Kóṭṭai. The Gandharvas were demigods, or celestial birds, who defeated the Nágas. The name may have some connection with the Nága or serpent names, mentioned further on.

Kaṇḍutam baṭṭu (*Tam.*). See Paṭṭu.

Kangai-goṇḍa-sózha-ppuram (*Mixed*). Now Gangai-kóṇḍappuram. The capital of the Cholas about the tenth century. Gungacondah was probably the Sanscritized name of a king.

Kángaiyan guṛiççi. (*Tam.*). There are several places named Kángaiyan. Caungyam was one of the seats of the Chera Kingdom near Coimbatore. Kángiyam = gold.

Kannánáṛ (*Tam.*). Kannan's channel. Kannan is a proper name among the lower castes.

Kaṇṇi (*Tam.*). A small channel for irrigation purposes.

Kapisdalam (*San.*). 'Monkey place,' from Sans. Kapi (Gr. κῆπος) an ape; and st'hala a station, place.

Káraikkál (*Tam.*). The French town on the Coromandel coast between Tranquebar and Negapatam. From kárai = masonry, and kál a channel.

Káraikkóṭṭai (*Tam.*). From kárai = morter, paste, cement. A stone-built fort.

Káraikkuṛiççi (*Tam.*). 'Stone-built hamlet.'

Karaiméḍu (*Tam.*). 'Shore mound,' from karai = a shore, bank, &c., and méḍu = a mound.

Karaiyám-baṭṭi (*Tam.*). 'White-ant hamlet,' from karaiyán = white-ant; and paṭṭi = a fold, a village of herdsmen. Or it may be from karaiyán = a man of a shore-dwelling tribe.

Kasdúriyam-mál (*Mixed*). 'Musk-goddess.' The name of a Tanjore Rajah's wife, to whom this place was granted. Grants made to women are common. Ammál = goddess; superior woman.

Kathambúr (*Tam.*). From kathamba a flowering tree (Eugenia racemosa) sacred to the god Skanda.

Kaṭṭaḷai (*Tam.*). 'A grant.' 5 or 6 miles east of Combaconam in the Tanjore district there are, or once were, 7 places called Kaṭṭaḷai, distinguished as first, second, &c. Muthal, Reṇḍán, Múnán-, Nálán-, Árán, and Ézhán-, kaṭṭaḷai; assigned for the seven services of the great Tanjore temple.

Kattirinattam (*Tam.*). 'Brinjaul plantation;' kattari = the brinjaul or egg plant, Solanum melongena.

Káṭṭu-Man-nárkkuḍi (*Tam.*). 'Jungle-Mannárkkuḍi,' to distinguish it from Rása-Mannárkkuḍi.

Kávéri (*Tam.*). The Cauvery River. From Tam. kávi = red-ochre, and éri = a sheet of water. 'Red river.' But another derivation is from kávu a grove. It is also named Kákka nathi, Crow-stream.

Kávéri-ppaṭṭanam (*Mixed*). 'Chaberis Emporium' of Ptolemy. The port at the river mouth has also been named Kávérippúmbaṭṭanam, (possibly for Káveri-pógum) = 'Cauvery-passage town.' The three great islands in this river are all named after Vishnoo: viz., Shreerangam at Trichinopoly; Madhya-Ranga, now commonly called Shivasamoodram between the two great Cauvery water-falls; and Seringapatam in Mysore.

Kírttimán (*Mixed*). Kírtti = fame, glory; and mán = prince. Compare Sheramán, Toṇḍamán.

Kívalúr (*Tam.*). Kí = the screech of a parrot; but the word is probably a corruption of some other word.

Koḍaivásal (*Tam.*). 'Place of charity' like Annavásal. Kodai = giving.

Kóḍáli-kka-ruppúr (*Tam.*). 'Black town of the axe.' The purport is not understood.

Koḍamangalam (*Mixed*). Compare Koḍaivásal. Mangalam = prosperity, and is often used as the name of a town.

Koḷḷaḍam or Koḷḷiḍam (*Tam.*). The Coleroon River. Koḷḷáyí = a breach in a bank.

Kollai (*Tam.*). A 'close,' an enclosed field, garden or yard; applied to enclosed fields that cannot usually be irrigated, but have a fence or hedge.

Kómal (*Tam.*). Kó in Sanscrit = 'a cow,' but in Tamul = 'a king.'

Koṇḍán (*Tam.*). A channel; for instance Uyyakkoṇḍán, at Trichinopoly. It is also found in titles of princes.

Kónúr (*Tam.*). Kó, or Kón, is ancient Tamul for a king. Kón is a title amongst the Iḍaiya or herdsman tribes.

Kóppálasamuttiram (*San.*). 'Cowherd's lake.'

Koraḍáççéri (*Tam.*). Koraḍá is Hindostany for 'a whip,' but the first term is probably Tamul. Koṛi is Tamul for 'a sheep.'

Kóraiyár (*Tam.*). 'Reed-river.' Kórai = reed, coarse grass. Many river channels have this name.

Kóthaṇḍaviḷágam (*San.*). 'Battle field of the bow.'

Kóṭṭagam (*Tam.*). A tank, pond, &c., applied to meres or waste-water lakes. It also means a temple. It also = kóṭṭam, a place, agricultural district.

Kóvaḷam (*Tam.*). A cape, headland, or a town so situated. It is found on the coast; for instance, Covelong south of Madras, and elsewhere. There is a 'Kóvalan' near Cape Comorin.

Kóvilán dóppu (*Tam.*). Kóvil = a temple; tóppu = Sans. stúpa a mound, clump. The initial s has been dropped, as in talam for st'hala, tán for st'hána, &c.

Kóvilppaṭṭu (*Tam.*). Village, or place belonging to a temple. Paṭṭu perhaps means 10 véli of land. Paṛṛu however means a village, from paṛṛu = adherence, attachment, &c.

Kóvindakkuḍi (*Mixed*). From the Hindoo proper name Góvind, 'the finder of the cow, Krishna.'

Kóvindakkuḍi (*Mixed*). The local legend is that a sacred cow (gó) strayed there (vanda = which came). This explanation is mentioned here as a type of a very large number of etymologies given by the Tamulians. The science of etymology is not understood, and words are taken to pieces in a mechanical manner producing absurd results. The name is from the Sanscrit Góvinda = cowkeeper. Near this place however are a number of names derived from the cow. For instance ávúr, town of the cow'; which is pure Tamul.

Kuççúr (*Tam.*). From kúççu a hut, a cottage of leaves, &c. Connected with kúchu, for kúrchu = 'point or peak.' See also Kuppam and Kuriççimalai.

Kúḍalai-Áttúr (*Tam.*). 'River-town of the confluence.' Kúḍal = a meeting, junction.

Kúḍalúr (*Tam.*). Cuddalore in English. Kúḍalúr is at the confluence of the Kaḍilam and Paravanár rivers with each other and the sea. It is a common name in Southern India. Kúḍal, or Kúḍali, means a town at the confluence of two rivers: as, for instance, Kúḍalai-áttúr, at the junction of the Maṇimugdár with the Vellaur.

Kúḍalúr (*Tam.*). The place of meeting, junction, assembling, collection, &c., commonly applied to a confluence. For instance Bavánikkúḍal; Kúḍali (confluence of the Kistna and Toongabudra); &c.

Kuḍikkáḍu (*Tam.*). A hamlet; an outlying hamlet: scattered huts. See Káḍu.

Kuḍittángi (*Tam.*). The field nearest to a supply channel is called kuḍittángi; 'support of the ryots.'

Kumbagóṇam (*San.*). Combaconam. Former capital of Tanjore and seat of a Chola dynasty, but now a place where Brahmin wealth and culture predominate. The derivation commonly given is Sans. kumbha = a water-pot, and kóṇa = corner, edge, brim. With kumbha compare Gr. κύμβη a hollow, Lat. cymba a vessel, Eng. coomb, from Sax. cumb, a vessel to measure with.

Kumbésuvaran (*San.*). 'Lord of the water-pot' = Kumbha íshwara; deity of the Sheiva temple at Combaconam.

Kuṇavásal (*Tam.*). See Annavásal and Koḍaivásal.

Kúṇḍúr (*Tam.*). Kuṇḍu = any round and heavy substance.

Kuñjuvéli (*Tam.*). Kunju = the young of any animal. Here a new place on the site of an old. See Veli.

Kunnam (*Tam.*). A hillock; common in North and South Arcot Districts.

Kuppam (*Tam.*). A hamlet of people of the lower castes, such as fishermen, &c., made of thatched huts or peaked cabins. The root meaning is heap, pile, &c. This name is found in the valley of the South Pennair, and between the Palaur and Vellaur rivers in South Arcot; but it also extends on the coast between Poolicat and Point Calimere, and inland from Cuddalore as far as the Eastern Ghauts. The group of pointed roofs is the chief feature. Compare koppu and kóppuram, a pointed roof, spire. This primitive root is found with allied meaning in many languages.

Kuppanguzhi (*Tam.*). 'Cottage dell.'

Kuriççimalai (*Tam.*). Kuriççi means a small village or hamlet, usually in a wild place. Kundrachi has been suggested as a fuller form of the word, as if from kundru a hill. But compare kuṛu = short, Gr. κυρτός; also kúrai = a pointed roof.

Kuṛukkai (*Tam.*). 'Short arm,' referring to an image of Pillaiyár with short arms. Kuṛukku = short. Koṛkkai in Tinnevelly has been derived from kol = slaughter, and kai = hand; i.e., an army or camp. From Korkkay the Greeks named the gulf of Mannár the "Colchic" gulf, confounding it with their own κολχοί.

Kuzhi (*Tam.*). A pit, hole, hollow, dell. Tórakkuzhi = hollow of the herd. Kuppanguzhi = hollow of the huts.

Lálppéṭṭai (*Mixed*). Named after Lál-Khán of Pálaiyamkóṭṭai between the Trichinopoly and South Arcot Districts.

Mailam (*Tam.*). For mayilam, 'Peacock's place.'

Malai (*Tam.*). A hill or mountain.

Maṇakkollai (*Tam.*). 'Sand field.' Maṇal = sand. A common prefix.

Maṇakkuṇḍu (*Tam.*). 'Sand hill.'

Maṇalméḍu (*Tam.*). 'Sand mound.'

Máṇikkan gollai (*Tam.*). Máṇikkam's field.

Maṇmalai (*Tam.*). Earth hill, or sand hill. Maṇ = earth.

Mannambuñjaittóppu (*Tam.*). Corrupted into 'Mannamiñjait tópu.' Mannan = a king, prince, and puñjai = dry cultivated land.

Mannárkkuḍi (*Tam.*). Mannan or manavan = a king, prince. But mannár also means enemies, foes. There are many places of this name.

Máppiḷḷai kkuppam (*Tam.*). An annual commemoration is held, when a puppet made up of flour (má) is sacrificed and offered to Shiva. The cost of this festival is defrayed from time immemorial by the villagers of Máppiḷḷai kuppam. Piḷḷai = a child, and kuppam = a hamlet. Máppiḷḷai is however "a son-in-law," and false and fanciful derivations are most common among the Tamuls.

Máppiḷḷai Náyakkambaṭṭi (*Tam.*). Village of the son-in-law Náyakkam.

Marangúr (*Tam.*). Frequently occurs; but the meaning has not been discovered.

Maruthúr (*Tam.*). This is a common place-name, and is perhaps derived from marutham = agricultural land. Marutham or maruthaimaram also means a tree (Terminalia alata), under which the village god usually stands. Maru = fragrance.

Máyavaram (*Tam.*). More properly Máyúram (for Máyúrappuram) = Peacock town. Mayúra is from the peafowl's cry. See Mailam.

Mélakkathambúr (*Tam.*). **Mélaiyúr** (*Tam.*). West Kathambúr. The kathamba tree is sacred to Skanda. Melai, = upper = western, is applied when the country rises to the west.

Meykkangollainattam (*Tam.*). 'Meykkan's upland village.'

Méṭṭukkollai (*Tam.*). 'Mound field,' from méḍu = rising ground.

Moṭṭaiyan diḍal (*Tam.*) Moṭṭaiyan's mound. Re-named by the Brahmins Tirumaṇamangalam. Teḍal, tiḍar, tiṭṭai = a mound, bank, platform.

Mummuḍiççózhagam (*Tam.*). 'Three-crowned Shózhan.'

Múrttiyammálppuram (*Mixed*). So named after the wife of a Rajah. See Kasdúriyammál.

Múrttiyan (*San.*). Múrtti = body, form of a deity, i.e., image, idol.

Musiri (*Tam.*) There are several instances of this name. Musu = ape.

Muttammálppuram (*Mixed*). Named after the wife of a Rajah: see Kasdúriyammál; Muttu = a pearl.

Muṭṭuvañjéri (*Tam.*). Muṭṭuvan's village.

Múvalúr (*Tam.*). Triad town. Brahma, Vishnoo, and Rudra performed service to Shiva here. Mú = three. See Tiroovalore.

Múvánallúr (*Tam.*). Mú, múṇḍru = three.

Múvarakkóṭṭai (*Tam.*). 'Fort of the triad.' See Múvalúr. Múvar = three persons. Commonly called Múvaraṭṭai, or "Múvaṭṭai."

Náççiyárkkóvil (*Tam.*). 'The honourable woman's temple.'

Naḍáṛ (*Tam.*).. 'Middle river.' See next.

Naḍuppaṭṭi (*Tam.*). 'Middle fold.' Naḍu = middle, centre; and paṭṭi = a hamlet.

Nága (*San.*). The cobra; a snake (Ang.-Sax. snaca). There is a cluster of Nága or serpent names in Southern India running inland from Negapatam and Nagore on the coast, as far as Trichinopoly. They are Nágai, Nágakkuḍi, Nágalppúṇḍi, Nágalúr, Nágamangalam, Nágaṇáthasámi, Nágandi, Nágappaṭṭanam, Nágarásappuram, Nágáttúr, Nágésuvaram, Nágúr. Also Pámani, Pámbanóḍai and Pannatha. For the root compare Lat. anguis, angulus and annulus; and Gr. ἐγχέλυς an eel. The English snake is from the Anglo-Saxon 'snaca.' The correspondences are given for what they are worth.

Nallanam (*Tam.*). Nalla = good.

Nallavanniyanguḍikkáḍu (*Tam.*) A caste name or title of a small Tamul tribe. Kudikkáḍu = cottages, a hamlet. See Káḍu.

Nallúr (*Tam.*) 'Good-town;' a very common name, usually suffixed.

Nannilam (*Tam.*). 'Good soil,' from nalla = good, and nilam = ground, earth. Nal becomes nan in combination; for instance nañjai = good or rice field.

Nattam (*Tam.*). A village, or village site; the land reserved for building ground and gardens, &c., usually above irrigation level. Applied especially to the villages of common peasants.

Nattamalai (*Tam.*). The village mound.

Neppukkóvil (*Tam.*). 'Fire temple.' Neppu for neruppu, = fire.

Neykkunnam (*Tam.*). **Neykkuppai** (*Tam.*). **Neyvanai** (*Tam.*). **Neyvásal** (*Tam.*). Ney = to weave. Weavers form a considerable part of the population.

Níḍámangalam (*Mixed*). Níḍu in composition signifies extension or duration. Mangalam is Sanscrit for prosperity. Compare Koḍamangalam.

Níraḍamangalam. The first part of this word is not understood, and is probably a corruption.

Óḍai (*Tam.*) .. Óḍai = a watercourse. From óḍu = run.

Okkúr (*Tam.*).. Okkan itself means a town. Okkal = family.

Orattúr (*Tam.*). **Óraiyúr** (*Tam.*). Perhaps connected with óram, side, shore.

Paḍanilai (*Tam.*). Waste ground, unirrigated land.

Paḍappukkuḍi (*Tam.*). From paḍappai = a stall, yard, garden, enclosure for agricultural purposes.

Paḍar-kkalluppoṭṭai. (*Tam.*). 'Strewn-stone-waste.'

Padugai (*Tam.*). An outlying hamlet, a cluster of huts at some distance from the village; arable land near a river.

Págalméḍu (*Tam.*). Págal = the jackfruit tree.

Paingánáḍu (*Tam.*). Pañjanáḍu, five villages.

Pákkam (*Tam.*). Also bákkam in combination. Compare, = a side; and Saxon 'bord,' English 'board' in 'sea-board.' A common affix to places in the sea-board districts near to, and south of, Madras.

Paláñjéri (*Tam.*). Palá = the jack-tree.

Paḷaiyagaram (*Mixed*). 'Old Agraháram.'

Paḷḷam (*Tam.*). Low land; a hollow, valley. Compare pulam field. This is a common affix to place-names especially near the south-east coast and near river channels.

Paḷḷiviḍai (*Tam.*). 'Pallar's grant.'

Pámaṇiyáṛ (*Tam.*). 'Pámaṇi-river.' Pámbu = a snake; aṇi = wearing. See the next.

Pámbaṇáṛ (*Tam.*). Pámbu = snake, aṇi = wearing. The Nága or serpent race are represented as wearing as a hood a snake or many-headed Nága.

Pámbaṇóḍai (*Tam.*). Snake water-course. Óḍai = a channel, a dry water-course. From Óḍu = run.

Pangu (*Tam.*). A division, share, lot. For example Shinna Máṇikkappangu near Tranquebar.

Panai (*Tam.*)... The palmyra palm.

Pandanallúr (*Tam.*). Ball Nallúr. The god and goddess at the temple here are represented as playing at ball. Pandu = a ball. This may be a device after the event.

Panaiyakkóṭṭai (*Tam.*). Palmyra-fort. See the next.

Pannatharu (*San.*). From Pannagam = serpent, and taru = wearer. I.e., serpent-wearer, or Pámaṇi, which see. This is one of the Negapatam (= Nágappaṭṭaṇam) and Nágúr cluster of serpent names; near Tiruttaruppúṇḍi.

Páppanásam (*San.*) For Sans. Páva-vinásam, = 'sin-extinction.'

Paṛappanéri (*Tam.*). 'Scorpion lake' from paṛappan a scorpion. Para = to hurry or dart about.

Paṛaṭṭai (*Tam.*). 'Tangled or matted locks;' for scrub jungle, bush, &c.

Paṛavanáṛ (*Tam.*). Paravu = broad.

Parithikkóṭṭai (*Mixed*). Sans. paridhi = the sun, a halo, glory, disk.

Paṛuppar or Pazhuppar. (*Tam.*). Proper name of a Jeina image.

Paruttikkóṭṭai (*Tam.*). 'Cotton-plant fort.'

Pathavai (*Tam.*). For paḍugai, a low tract or flat by the river side.

Páthi (*Tam.*). A part, division, one-half. Tenpáthi = southern part. Vaḍapáthi = northern part.

Paṭṭaççéri or Paṭṇaççéri (*Tam.*). Common usage for a fishing-village on the east coast; also paṭṭiççéri.

Paṭṭísuvaran (*Mixed*). 'Master of the fold,' pronounced and written Paṭṭi-yésuran from paṭṭi a cattle-fold, and íshvara = lord, possessor. Paṭṭísuvaram is a large temple near Combaconam.

Paṭṭu (*Tam.*) A common affix to place-names in the South Carnatic; derivation uncertain. It may signify 'attached,' 'appertaining,' or 'belonging to' as if from paṛṛu (= pattru) to seize, embrace, attach, &c. The final u is mute, Shengalppaṭ. It sometimes becomes veṭṭu, e.g., Kaṇakkarveṭ for Kaṇakkarappaṭṭu, near Chidambaram. The following are examples of this very

Pattu (*Tam.*)—(*Contd.*). common termination. Ámbalap-pattu Arasa-pattu, Árusutti-pattu, Kandutan-pattu, Kulisa-pattu, Nadu-pattu, Nallambádi-pattu, Naval-pattu, Sikkala-pattu, Telláram-pattu, Tiruvégam-pattu, Tondarán-pattu, Vadakkai-pattu, and Vanni-pattu, Iruppai-pattu, Kanakara-pattu, Mátham-pattu, Vánam-pattu, Vettiyár-pattu, Kaliyál-pattu, Kalla-pattu, Kal-pattu, Malli-pattu, Mámbala-pattu, Manda-pattu, &c., &c., Shengal-ppatt(u) and Shéttuppattu (= Chetput). With -pattu compare patti a fold, pádi a village row, pádu settlement, abode, padagai an outlying hamlet, páta a flat, range of rice fields, pattanam, pattaççéri or pattiççéri, péttai, pattámaniyam (village headman, pattadai a stock, heap, &c.), pattai bark (of tree), stripe, &c., padu and padugai a pit, pondhole, tank. In dictionaries pattanam is always treated as Sanscrit; this seems not at all probable.

Payiri (*Tam.*). Payiri = a certain edible plant. Payir = growing grain, crop, herbage, shrubbery.

Pékkarumbu-kkóttai (*Tam.*). 'Wild sugar-cane fort.'

Perambúr (*Tam.*). 'Great town;' of common occurrence in Southern India.

Periyarek-kunnam (*Tam.*). Periya, peru, pér = great.

Perumángudi (*Tam.*). 'Great hero's dwelling.' Perumán is one of the hundred caste names or titles amongst the Kullar.

Perumbándi (*Tam.*) 'Great Pandiyan.'

Péttai (*Tam.*). A suburb or village with shops, a market town.

Piççanúr (*Tam.*) Piççai = water-melon. Also = alms, charity.

Pidágai (*Tam.*). Applied to a subordinate village or sub-division. Compare pudam = a side, and puram = outside, a suburb. Also spelt pudágai.

Pidári (*Tam.*).. A tutelary goddess or gramadevata.

Pillaiyár (*Tam.*). 'The son' (of Shiva), called in the north of the Presidency Ganésha and Ganapati = 'Lord of hosts;' also Vighnésvara = 'Lord or Remover of obstacles.' His shrines and his image of an elephant's head and a man's body with a protuberant belly are to be seen everywhere.

Pinnaiyúr (*Tam.*). Pinnai = a younger sister; also = a flowering tree yielding oil (Calophyllum inophyllum).

Pirambúr (*Tam.*). 'Rattan-cane town.'

PirándaiorPirandai (*Tam.*) A garden of toolsy plants, sacred to Vishnoo.

Pondu (*Tam.*) .. A hole.

Ponvilainda nallúr (*Tam.*). 'Gold-producing-Nallúr;' from its fertility.

Porppathiñja nallúr (*Tam.*). 'Golden-crop-Nallúr' from pon gold and pathiñja = planting.

'Porto Novo.' A Portuguese name called also Mahomed Bandar; known to the Tamuls as Parangippéttai, or the town of the foreigners.

Pottai (*Tam.*) Pottai = a lump or hummock; common in Tinnevelly. Pottal = an arid tract, fallow ground. Pottai = blindness.

Pottán gádu (*Tam.*). 'Barren jungle.' See the next.

Pozhi (*Tam.*).. A boundary or bank in a rice field.

Pudágai (*Tam.*). A sub-village or hamlet, a detached street or hamlet. The same as Pidágai; which see.

Púdalúr or more correctly Púsanúr (*Tam.*). There are several places of this name in Southern India; 'worship town,' from púsan adorning an idol in worship. Púthanúr is common and seems to be another form of this name. The Tamul púsu means smear, anoint, adorn.

Pulam (*Tam.*). A field. For example, Karuppam-bulam = 'black field;' Nedum-bulam = 'long field.' Compare Tam. pozhai, Tel. polanu, Can. hola, a field.

Pulavangádu (*Tam.*). From pulavan, a sage, philosopher.

Puliyam ballam (*Tam.*). 'Tamarind-hollow'. Puli = sourness.

Puliyan dán-gal (*Tam.*). 'Tamarind tank.'

Púndálamé-du (*Tam.*). Pronounced púndára or pundáya-múru (flower-garden-mound); see next.

Púndi (*Tam.*) **and Púdi** (*Tam.*). Shrubbery, garden, or grove; from púndu or púdu a plant, herb, shrub. In Madras coast districts, Púndi is a common name for a village. Tiruppúndi and Tirutta-ruppúndi are so named from the Bél-tree groves there, sacred to Shiva.

Puthukkalam (*Tam.*). 'New threshing floor.' Puthu or puthiya = new, and kalam = area, arena, a threshing floor.

Puthuyéri (*Tam.*). 'New lake.' Puthu = new, and éria = a large reservoir, or irrigation tank.

Puttagaram (*Mixed*). 'New agraháram,' for Puthu-agraháram.

Puttúr (*Tam.*). Puthu = new; in composition putt-.

Puvanakkiri (*San.*). Name of a town on the Vellaur river, near Chidambaram.

Púvarasu-vettikkádu (*Tam.*). 'Field where the Portia tree was felled.' Portia, the English name of the Thespesia populnea, like Páras, its Deccany name, is from the Tamul Púvarasu, which is from pú = flower, and arasa (maram) = Rajah's (tree). The Peepul (Ficus religiosa) is in Tam. Arasa-, Tel. ráya- or rági mánu, 'royal' tree. The Portia is the flowering-peepul. It is a kind of hibiscus and grows freely in Southern India, flourishing most near the seashore. The common English name in Madras is 'tulip tree.' See Vettikkádu.

Púvattúr (*Tam.*). From pú flower, and úr = village.

Rágammál (*Mixed.*). Proper name of a woman of rank. Sans. rága = love, passion, music; Tam. ammál = woman.

Rágamvettik-kádu (*Tam.*). Pronounced Rágamattikkádu. Rágan's clearing. Vettu = cut, dig, &c. See Vettikkádu.

Rámanellúr (*Mixed.*). Rámá's rice town.

Rarámutti-raikkóttai (*Mixed*). A corruption of some proper name, perhaps Rásámuttu-ráya's fort.

Rásálikku-dikkádu (*Tam.*). From Irásáli, a large kind of hawk.

Rása-Man-nárkkudi (*Mixed*). Royal Mannárkkudi to distinguish it from Káttu-Mannárkkudi.

Ráyappuram (*San.*). Rajah's town or Royal city.

Rendángatta-lai (*Tam.*). 'Second grant.' See Kattalai.

Rettavayal (*Tam.*). For Irattavayal = double-field.

Shadaiyap-par (*Tam.*). Shiva with matted-locks.

Sháliyaman-galam (*Tam.*). There is a local tradition of Shálivháhana as founder; but the name is more probably derived from Sháliyar weavers.

Shamuttiram (*San.*). Tamul form of the Sanscrit samudra, a lake, large sheet of water, the sea, ocean. From Sans. sam = together with = gathering, collection, meeting, and Sans. uda and udra = water. Compare Gr. ὕδωρ, Lat. unda and udus, Gothic Vato, Lith. wandu.

Shandai-ppéttai (*Mixed*). 'Market street.' A weekly market place or periodical bazaar, from sandi to meet, and péttai.

Sháranga-ppáni (*San.*). A name of Vishnoo at Combaconam as 'the bowman.' Sháranga = a bow, and páni = the hand.

Sháttambádi (*Tam.*). Pádi = a row hamlet. Shártan is a popular tutelary god, better known as Aiyyanár.

Shattivilá-gam (*San.*). For shakti = power, prowess. Világam = field of battle.

Shattiya-mangalam (*San.*). 'Real-prosperity;' from San. satya = true, and mangalam = prosperity.

Shayangon-dasózhappu-ram (*Mixed*). Sheyan is Tamul for a Jain. There are some old Jaina images here; one called Pazhappár, still worshipped by a few Savunar.

Shembangudi (*Tam.*).	Shemmán = a shoemaker, currier.
Shendirakkadaivallam (*Tam.*).	Shendira = red; kadai = bazaar. See Vallam.
Shengádu (*Tam.*).	'Red field,' a common name in the Tamul country; applied to a place sacred to Shiva. From shen, red, and kádu forest. Red is the peculiar colour of Shiva.
Shéppalánattam (*Tam.*).	For Sheyyapperumá nattam = beautiful Perumál's village.
Shéri (*Tam.*)	Shéri = hamlet, from a root meaning collection, assemblage.
Sherumangalam (*Mixed*).	Sheru = battle.
Shettitángaléri or (*Tam.*). Shettiyangáléri.	Shetti = a trader; tángal = a pond or natural tank, as opposed to kál an artificial channel or water-course.
Sheykkal (*Tam.*).	Arable or tilled land. For Sheykkál (from Shey a corn field, cultivation); the name appears variously as Shékkal, Shakkal, Shikkal.
Shiríppuliyúr (*Mixed*).	Srí = holy, and puli = a tiger. There is a legend of a tiger having done worship to the deity here. Vyághrapátha = 'tigerfooted' is the name of the original native sage of Chidambaram.
Shiríppurandán (*Mixed*).	Shirí = sacred, and puram = side. The meaning of the termination dán is not yet analysed; but it is very common.
Shithambaram (*San.*).	The town between the Vellaur and Coleroon rivers, with the famous ancient temple of Shiva. From shid = wisdom, and ambara = horizon, sky. 'Heaven of wisdom.' Tillai, or Tillaivanam is the vernacular name of this place. This may be the βελχείρ of Ptolemy and the ancient geographers.
Shittálattúr (*Tam.*).	Small banyan town. Shiru = little is in combination before a vowel shirr and this is softened into shitt.
Shivakkollai (*Tam.*).	'Red field.'
Shórakkudi (*Tam.*).	Shórakkáy = a pumpkin.
Shózhamáthévi (*Mixed*).	'Shózhan's great goddess.' Má for máhá. See Vikkiramáthi.
Shózhappuram (*Mixed*).	Shózhan's town, a common name in Cholamundalam. Compare Shóranúr which is equally common.
Shózhattaram (*Tam.*).	'Chola land.' Taram may be for tarai land. Compare Lat. tellus and terra.
Shiríppuliyúr (*Mixed*).	For shirí = holy, puli = tiger, and úr = town. Puliyúr is common in South Arcot.
Shundarapperumál góvil (*Mixed*).	Beautiful Perumal's temple.
Shúriyamanal (*Mixed*).	Shúriyan = the sun, and manal = sand.
Talaivappálaiyam (*Tam.*).	Talaivan = Headman; and Dalavoy is the common title for the prime minister at a Native South Indian Court.
Talangambádi (*Tam.*).	Tranquebar. Formerly a Danish settlement. 'Street of Teloogoo people.'
Tála vanam (*Mixed*).	'Palmyra-palm- forest.' Sacred palmyra place.
Telungar kkóttagam (*Tam.*).	Properly Talainá y arkkóttagam. Kóttagam a pond, tank.
Tándavandóttam (*Tam.*).	Tándavan's garden. Tóttam is a garden from tondu = dig.
Tángal (*Tam.*).	A support, prop, often applied to a tank in North and South Arcot Districts. The water is raised or supported by the embankment. Compare éri and éndal.
Tanjore (*Tam.*).	Tañjávúr, familiarly called Tañjai by the natives. It is more fully given as Tañjai-mánagaram = Tañjan's-great-city after its founder. Tañjam means refuge, shelter.
Tarangambádi (*Tam.*).	Tranquebar; for Talangambádi which see.
Tattanúr (*Tam.*).	Derivation not known.
Tekkiruppu (*Tam.*).	'Southern-dwelling.' Ten, terku, tek- =southern; iruppu = residence, abode, dwelling, from iru = sit, be, remain, dwell, &c.
Telungangudikkád (*Tam.*).	'Telingan's-hamlet;' see Talangambadi.
Tennalakkudi (*Tam.*).	South-dwelling: ten- terk- tek- &c. = south; tennai the cocoanut tree.
Tenpáthi vattam (*Tam.*).	Southern division of a vattam = circuit, a group of villages.
Teru (*Tam.*).	A street, applied also to the hamlets scattered about a large village or parish. Compare Mal. tara.
Teru (*Tam.*).	Common usage for tiru sacred, auspicious. Tiru is not, as stated in the dictionaries, a form of the Sanscrit shrí.
Tévanámbattanam (*San.*)	The name of Fort St. David or Cuddalore. There are traditions of a great seaport town having formerly existed near this place. It may stand for Tévanáyaganpattanam.
Tévanúr (*Mixed*).	Tévan is a common title amongst the Maravan tribe, and is frequently assumed by the Rajahs, Naicks and Poligars of South India.
Tévikkóttai (*Mixed*).	'Fort of the goddess.'
Tívukkóttai (*Mixed*).	'Fort of the island.' Tívu is the Tamul form of the Sans. dvípa an island (dvi + ap = two waters). Compare do-áb, land between two rivers.
Tidal (*Tam.*)	A mound, same as tedal, tidar, tittai, &c.
Tillaivanam (*Mixed*).	The vernacular name for which Chidambaram is the Sanscrit substitute. Tillai a tree with milky sap.
Tiruççirai (*San.*).	A place dedicated to a three-headed (trisira) dévata. Compare Tri-sira-palli = Trichinopoly = Three-headed (one's) town.
Tirukkalá-úr (*Mixed*).	There are several places of this name. The derivation has not been ascertained.
Tirukkónappuram (*Mixed*).	May possibly be 'three-corner town' as Tiru-kóná-malai for Tri-kónamalai, i.e., "Trincomalee" = the three-peaked or triangular mountain on the coast of Ceylon.
Tirumalairásappuram (*Mixed*). Tirumalairásan (*Mixed*). Tirumalaisamuttiram (*Mixed*).	These names of large public works have reference to Tirumala Náyakkan, who ruled in Madura and Trichinopoly in the 17th century.
Tirumanamangalam (*Mixed*).	Tiru = sacred; man = earth, soil. A large mound of debris marks the ancient site of more than one place of this name.
Tirunágésuvaram (*Mixed*).	'Sacred snake lord.' The last term is Sanscrit, and the first two are Tamul.
Tiruppáldurai (*Tam.*).	'Sacred-milk passage.' Turai = a ford.
Tiruppanandál (*Mixed*).	'Sacred palmyra station;' tál said to be for st'hala.
Tirupperumaiyam. (*Tam.*).	Corruption for Tirupirumbiyam, 'sacred rushes.' This name is given as an example of numerous corruptions found in the Tamul names.
Tiruppúvanam (*Mixed*).	'Sacred flower-forest.'
Tiruvadi (*Tam.*).	'Sacred fort,' of a deity.
Tiruvalañjuzhi (*Tam.*).	'Sacred-right-hand coil.' The image of Vighnéshvara sometimes has its elephant trunk coiled to the right instead of as usual to the left. A curl to the right is a fortunate mark. Compare the Swastica symbol. At Vallam near Chingleput is a rock-cut figure of Ganesh with the trunk turned up to the right.
Tiruvidai maruthúr (*Tam.*).	'Sacred northern agricultural village.' But this also is a corruption for Tiruvidai-maruthúr = 'sacred-middle-agricultural village, as seen by the Brahmin name which is Madhyárjunam. Vada = north; idai = middle.
Tiruvizhimalalai (*Tam.*).	'Fair-eye-lily.'

Tiṭṭu (*Tam.*). Same as tiḍal = a mound, rising ground. Naḍu-tiṭṭu = middle-bank. Cf. Tiṭṭakkuḍi on the Vellaur.

Toṇḍai (*Tam.*). Toṇḍarámbaṭṭu. Toṇḍi. Toṇḍai = the Toṇḍamaṇḍalam or Toṇḍa region, whose capital was Conjeeveram. It is now represented by the Poodoocottah territory, under the Kaḷḷan prince still called Tondiman, lying between Tanjore, Trichinopoly and Madura. Toṇḍi is a seaport south of the Tanjore border, and many other names contain Toṇḍa. Toṇḍu = to serve, wait on.

Toṟukkuzhi (*Tam.*). Toṟu = a crowd, herd, &c. Kuzhi = a pit, hollow.

Tóṭṭam (*Tam.*). A garden; from tóṇḍu = dig. Púndóṭṭam = a flower garden.

Tukkáççi (*Tam.*). For turkkaiyáççi name of a demoness. Tamul for Durga.

Tuṟai (*Tam.*). Affix. A landing-place, the ford of a river, the haven of a sea. See Tuṟaiyúr, Áduthuṟai, Tiruppálduṟai.

Tuṟaiyuṇḍakkóṭṭai (*Tam.*). Tuṟaiyuṇḍa is a Kaḷḷan caste title.

Tuṟaiyúr (*Tam.*). 'Ford town.' See Tuṟai.

Túttúr (*Tam.*). From túṟu bushes, low jungle, brush-wood. Túṟṟu (= túttu) means scatter, spread abroad, strew. Compare Túttukkuḍi (Tuticorin), scattered habitation.

Uḍaiyárppáḷaiyam (*Tam.*). Uḍaiyár = the wealthy, rich; (uḍai = wealth). A caste or tribe name. Pálaiyam = an estate held under military tenure.

Ukkaḍai (*Tam.*). For Ulgiḍai a hamlet, or Ulgaḍai an interior. Uḷ or il = within = a house.

Úr (*Tam.*). A country, town, village, township; from uru = be, exist, dwell. Compare iru.

Úttukkáḍu (*Tam.*). From úttu a spring, fountain; properly úṟṟu from úṟu spring, ooze, exude.

Vaḍa or Vaḍakku. (*Tam.*). Northern (in opposition to ten, teṟku, tekku = south, southern); mél = western; and kál = eastern.

Vaḍakkippaṭṭu (*Tam.*). Northern paṭṭu.

Vaḍavúr (*Tam.*). Also Vaḍuvúr = North town.

Vaḍavár (*Tam.*). 'North river.'

Vaittísuvaram (*San.*). Dedicated to Íswaran.

Val / Vaḷ (*Tam.*). Ear, point, edge, beauty, strength, speed, a hillock. These syllables and vel, vél, veḷ, &c., very frequently occur in Tamul place-names.

Valam (*Tam.*). A side, right side, a place. For instance Pulivalam = tiger's lair.

Vaḷarndakkaṇḍam (*Mixed*). 'Fertile part;' from vaḷaru = grow, increase. Kaṇḍam = a division.

Valasaikkáḍu (*Tam.*). 'Refuge jungle.' Valasai means a general removal or flight from home, for fear of an army in the field; hence a retreat, refuge, an encampment or settlement of refugees.

Vallam (*Tam.*). Val = a mound, hillock; Vallam being situate on high ground. There are many places of this name in Tanjore and South Arcot.

Váṇappaṭṭaḍai (*Mixed*). A gun-powder or fire-work factory. Ván = a rocket. Paṭṭaḍai = a stock or yard.

Váṇḍaiyiruppu (*Tam.*). Váṇḍaiyan a caste name of Kaḷḷans. Iruppu = dwelling, abode; from iru = be, remain.

Vandal (*Tam.*). Silt, the mud of tanks. Affixed to village names in Rámnád and other places from their being on a ridge of gravel-drift, on the spoil bank of a tank, or on the sand drifts left in the waterway of a flooded river.

Vándarampaṭṭaṇam (*San.*). Said to be a corruption of Vanathariyánpaṭṭaṇam for Vánásúran-paṭṭaṇam.

Vannippaṭṭu (*Tam.*). From Vanni the soma tree (Prosopis spicigera), a sacred tree used for sacrificial fuel.

Vášal (*Tam.*). Common use. But strictly váyil (= gateway, portal, entrance,) from váy the mouth, and il a house.

Vaṭṭam (*Tam.*). A circuit, round, &c., commonly applied to a group of villages.

Vattiráṇḍu (*Tam.*). Derivation not ascertained.

Vayal (*Tam.*). A rice field, an open field, or plain. Compare Canarese bailu, a plain, open field.

Váykkál (*Tam.*). A water-course, canal, or channel for irrigation; same as Kálváy.

Vazhangimán (*Tam.*). Vazhangu = to walk about. The whole derivation is uncertain.

Vázhkkai (*Tam.*). Means living, felicity, prosperity.

Vélanguḍi (*Tam.*). Derivation not ascertained.

Veḷattúr .. Derivation not ascertained.

Véli (*Tam.*). A common affix to village names, meaning a wall, hedge, a ward. For instance, Tirunelvéli (Tinnevelly). Also a prefix to village names meaning open field, a plain, the open, the air. Veḷippáḷaiyam = the camp outside a fort or town.

Véḷúr (*Tam.*). Véḷ = a benefit, benefaction. Véḷavi = a sacrifice.

Veḷḷáḷangáḍu (*Tam.*). Veḷḷáḷan, one of the Tamul agricultural tribe. Veḷḷáṇmai = husbandry, agriculture; from veḷḷam flood, and áṇmai ruling. Veḷḷáḷan = an irrigator.

Vémbukkuḍi (*Tam.*). 'Margosa (or Neem tree) dwelling.' Many places in Southern India are named from the Vémbu or Véppamaram, the Neem of Northern India (Azadarachta Indica).

Veṇṇáṟ (*Tam.*). Derivation not ascertained.

Véngadambéṭṭai (*Tam.*). Véngai = gold.

Veṭṭáṟ (*Tam.*). 'The excavated river,' from veṭṭu = dig, and áru = river. A canal.

Veṭṭikkáḍu (*Tam.*). 'Cleared jungle,' a clearing; from vettu = cut, káḍu = jungle.

Veṭṭiyárppaṭṭu, or -veṭṭu. (*Tam.*). Veṭṭiyán's settlement or clearing. The Veṭṭiyán is the grave-digger of the village community, from veṭṭu = dig.

Veṭṭukkuzhi (*Tam.*). The mound of earth thrown up in order to lower a rice field to the proper irrigation level. Veṭṭu = dig; kuzhi = a pit, hollow.

Vétháraṇiyam (*San.*). Araṇya = wilderness.

Veyilúr (*Tam.*). Derivation not ascertained.

Viḍuthi (*Tam.*). A lodging place, temporary abode; a common affix to village names.

Viḷágam (*San.*). A field of battle. A frequent suffix to place-names in East Tanjore. But the derivation may be otherwise.

Viḷakkáççiyamman (*Tam.*). Proper name of a village tutelary goddess.

Vikkiramangalam (*San.*). Vikram's mangalam or prosperity.

Vikkiramáthi (*San.*). Vikram's great goddess (Mahá Devi).

Vináyagan deruvu (*Mixed*). Vináyakkan's street.

Víráṇam (*San.*). Contraction for Víra-Náráyaṇam.

Víranáthaççéri (*Mixed*). Víranáthan's village.

Víráṇaṭṭéri (*Mixed*). The Víráṇam-lake. Eri = a lake, sheet of water. See Víráṇam, and compare Tirumattéri.

Visuvalúr (*Mixed*). Frequent, but the derivation is not ascertained.

APPENDIX No. XXX.

CLASSIFICATION OF THE PRIMITIVE ROOTS IN TAMUL GEOGRAPHICAL NAMES.

NOTE.—*In this Appendix the vernacular letters are spelt according to Appendix XXIII, with the addition of a point under cerebral consonants.*

(1) *Miscellaneous Prefixes.*

Aḍiççéri ..	.. suburb, hamlet.
Akkira ..	.. chief.
Annam ..	.. cooked food.
Aṛam, Aṛan-	.. virtue, charity.
Arasan ..	.. king, rajah.
Āṛu ..	.. six; or a river.
Arun ..	.. beauty, or a fortress.
Shinna ..	.. small.
Iḍa- ..	.. left side.
Kaṛu, Káṛ ..	.. black.
Káṭṭ- ..	.. wild, jungle.
Kával ..	.. ward, guard.
Kízhé ..	.. eastern, lower.
Kuruvi ..	.. small bird.
Koḍai ..	.. alms.
Maṇ, Mad-	.. soil, sandy.
Maṇi ..	.. gem, bell.
Méle, Mérkku	.. western, upper.
Muḍi ..	.. crown, knot.
Múrtti ..	.. idol, image.
Muttu ..	.. pearl.
Naḍu- ..	.. middle.
Nalla, Nan-	.. good, fair.
Neḍu- ..	.. long.
Ney-, Nesavu	.. weaving.
Pál ..	.. milk.
Pazha ..	.. old.
Periya, Peru, Pér ..	great.
Pin (nai) ..	.. behind.
Pon (nai) ..	.. golden.
Pú, Pudba ..	.. flower.
Puḍu, Puthiya, th..	new.
Puram ..	.. side, outside.
Rási ..	.. heap.
She, shen, Shegappu.	red, right.
Shí for Shirí	.. auspicious, good.
Shiṛu, Shitt-	.. small, little.
Shivappu ..	.. red.
Shirí, Shí ..	.. fortunate, good.
Shundara ..	.. beautiful.
Ten, Terkku	.. southern.
Tér ..	.. idol's car.
Tiru	.. holy, auspicious.
Ul- ..	.. within.
Vaḍa- ..	.. northern.
Vala- ..	.. right side.
Veḷ, Veṇ- ..	.. white, silver.

(2) *Miscellaneous Affixes.*

Akkiragáram	.. Brahman's village.
Álayam ..	.. place, temple.
Ambalam ..	.. court, hall.
Andal ..	.. for éndal = height, or a tank.
Aramanai ..	.. king's house, palace.
Shattiram ..	.. rest-house.
Shávadi ..	.. Native rest-house, &c.
Shéri ..	.. village, gathering.
Shey ..	.. rice-field.
Toṭṭi ..	.. pen, pound.
Ellai ..	.. boundary.
Kōppuram ..	.. tower, spire.
Kirámam ..	.. village.
Iḍam ..	.. place.
Iruppu ..	.. dwelling.
Kaḍai ..	.. end, market.
Kaṭṭalai ..	.. grant, endowment.
Kaṭṭu ..	.. tie, building.
Kiḍai ..	.. fold, yard.
Kiḍangu ..	.. store, tank.
Kóil, kóvil ..	.. temple.
Kollai ..	.. close, field.
Kondán ..	.. meaning uncertain.
Kóṭṭagam ..	.. pond, temple.
Kóṭṭai ..	.. fort.
Kóṭṭam ..	.. stable, cow shed.
Koṭṭáram ..	.. large shed.
Kuççu ..	.. cottage, hut.
Kuḍi ..	.. house, dwelling.
Kuḍikkáḍ ..	.. cottages, huts.
Kuḍisai ..	.. cottage.
Kuḍiyiruppu	.. habitation, hamlet.
Kuṇṇam ..	.. hillock.
Kuppam ..	.. hamlet of the lower castes.
Kuṛiççi ..	.. hamlet of poor people.
Kuruváḍi ..	.. sub-village or hamlet.
Kúṭṭam ..	.. village, assemblage.
Maḍam ..	.. college.
Manai ..	.. mansion, house.
Mandai ..	.. herd, collection.
Maṇḍalam ..	.. region, country.
Maṇḍabam ..	.. open court or hall.
Mangalam ..	.. flourishing village.
Máṇiyam ..	.. freehold.
Maruthúr ..	.. agricultural or rice-growing village.
Masúthi ..	.. mosque.
Miṭṭa, muṭṭa	.. freehold, estate.
Múlai ..	.. corner, nook, house.
Náḍ, náḍu ..	.. district, country.
Nagaram ..	.. large town, city.
Nallúr ..	.. 'good town.'
Nattam ..	.. common village site.
Nilam ..	.. ground, soil, land.
Pádi, páthi	.. part, share.
Páḍi ..	.. village, row.
Pákkam ..	.. village.
Páḷaiyam ..	.. a dependency.
Paḷḷi ..	.. a village, town.
Paḷḷivásal ..	.. a mosque, school.
Pangu ..	.. a division, share.
Paraiççéri ..	.. outcaste's hamlet, suburb.
Paṭṭanaççéri	.. a fishing village.
Paṭṭanam ..	.. town, a seaport town.
Paṭṭi ..	.. hamlet, cattle-fold.
Paṭṭu, paṭ ..	.. village.
Péri ..	.. meaning uncertain.
Péṭṭai ..	.. village with bazaar.
Pidágai, puḍágai	.. sub-village or hamlet.
Poḷi ..	.. boundary.
Púḍi ..	.. village.
Puḷḷi ..	.. hamlet, spot.
Púṇḍi ..	.. grove, or village.
Pur-a, -am, -i	.. town, city.
Shálai ..	.. court or public building, hall.
Shandai ..	.. fair, weekly market.
Shúḷai ..	.. kiln, furnace.
Talai ..	.. head, a place.
Talam, sthalam	.. place, station.
Teru(vu) ..	.. a street.
Ur, úru ..	.. town or village.

Váḍai .. .. a ward, quarter.
Váḍi .. .. enclosure, yard.
Valasai .. .. retreat, refuge.
Varam .. .. for puram, a town.
Vás, vási .. .. dwelling, abode.
Vásal (-váyil) .. doorway, port.
Vadi-pathi .. .. abode.
Vaṭṭam .. .. circuit, group.
Vayal .. .. a rice-field, flat.
Véli .. .. a hedge, a five-acre field.
Veḷḷai .. .. a corn-field.
Viḍai .. .. meaning uncertain.
Viḍu .. .. house.
Viḍuthi .. .. lodge.
Viḷágam .. .. field of battle.
Viḷai .. .. fertile field.
Víthi, vídhi .. street.

(3) *Topographical.*

Asalam .. .. mountain.
Araṇiyam .. .. jungle, waste.
Áṛu, áṛ .. .. river.
Áhey .. .. rice field.
Shólai .. .. grove, thicket.
Éndal .. .. tank, reservoir.
Éri .. .. .. lake, sheet of water.
Kangai .. .. water, a river.
Kiri .. .. .. hill.
Ká .. .. .. wood, grove.
Kaḍal .. .. sea.
Kaḍavu .. .. passage.
Kaduvu, kathavu .. door.
Káḍu, káḍ .. .. jungle, waste, wild.
Kal, kallu .. .. stone, rock.
Kál .. .. limb, channel, quarter part.
Kaḷam .. .. threshing floor, arena.
Kaḷar .. .. barren soil.
Kammáy .. .. tank.
Kaṇaváy .. .. pass, defile.
Kaṇṇi .. .. channel, water-course.
Karaḍu .. .. rugged mound.
Karai .. .. bank, shore.
Káyal .. .. lagoon.
Kéṇi .. .. tank, pond.
Kebi, kugai, kavi .. a cave, cavern.
Kiṇaru .. .. well.
Kóḍi .. .. point, cape.
Kóḍu .. .. horn, ridge, peak.
Kombai .. .. basin, valley.
Kóṇam .. .. corner, nook.
Kóvalam .. .. cape, headland.
Kúḍal .. .. junction, confluence.
Kuḷam .. .. tank, reservoir.
Kuzhi .. .. pit, hole.
Kuṇḍu .. .. ball, boulder, rock.
Kuṇ(ḍ)ru .. .. hill.
Kuppai .. .. heap, hillock, dunghill.
Kuṭṭai .. .. tank.
Madai .. .. sluice.
Maḍi .. .. rice field, bed, plot.
Maḍu .. .. pool, water, hole.
Madagu .. .. sluice, drain, conduit.
Malai .. .. hill.
Maṇ .. .. earth.
Maṇal, maṇa- .. sand.
Méḍu, móḍu .. mound, eminence.
Moṭṭai .. .. bald, bare.
Muḍi .. .. crown, crest.
Mugam .. .. mouth, face, entrance.
Munai, mundal .. headland, cape.
Óḍai .. .. pool, water-course.
Paḍugai .. .. flats by a river side.
Páḷai .. .. barren.
Paḷḷam .. .. low ground, a hollow.
Párai .. .. rock.
Parambu .. .. stony mound, gravelly waste.
Paravai .. .. expanse, sea.
Péḍu .. .. upland.
Péri .. .. meaning uncertain.
Polai .. .. a field.
Pondu .. .. hole, cave.
Pottai (putti) .. mount, hillock.
Poṭṭal .. .. barren ground.
Pulam .. .. field.
Púṇḍi and púḍi .. shrubbery, garden.
Shamuttiram .. water gathering, sea, lake.
Shigaram .. .. pinnacle, spire.
Taḍágam .. .. large tank, reservoir.
Talai .. .. head, source, site.
Támarai .. .. tank with lotus.
Tángal .. .. support, a tank.
Taṇṇi(r) .. .. water.
Tarai .. .. place, terrace.
Taravai .. .. salt swamp, waste.
Taṭṭai .. .. platform shelf.
Téri .. .. drifting sand, waste.
Tiḍal .. .. mound, rising ground.
Tiḍar, tiṭṭu .. hillock, mound.
Tiṇṇai .. .. bank, mound.
Tírttam .. .. bathing, or watering place.
Tívu .. .. island
Tóppu .. .. grove.
Tóṭṭam .. .. garden.
Turavu .. .. well.
Turai .. .. passage, ford, landing.
Úruṇi .. .. pond, tank.
Útt(r)u .. .. spring, fountain.
Val .. .. power, a mound.
Vala(m) .. .. right hand.
Vanam .. .. a wood, grove, jungle.
Vaṇḍal .. .. mire, silt.
Várai .. .. slope, border, hill.
Váykkál .. .. water-channel.
Veḷi .. .. the open, outside, area.
Véli .. .. hedge, five acres of land.
Veḷḷai .. .. whiteness, a corn-field.
Veḷḷam .. .. flood, inundation.
Veṭṭár .. .. canal, literally excavated river.
Világam .. .. battle-field.

(4) *Ethnological, Historic, Religious, &c.*

Ásári .. .. preceptor.
Aiyyan .. .. pastor, Sheiva Brahmin.
Aiyyanár .. .. Demon god Harihara.
Aiyyar .. .. Sheiva Brahmins.
Ammai .. .. Goddess of small-pox.
Amman .. .. lady, goddess.
Áṇḍi .. .. Sheiva mendicant.
Arasappaḷḷi .. a caste.
Asuran .. .. demigod, demon.
Ávuḍaiyár .. .. ox owner, or Shiva.
Áyan .. .. cowherd, pastor.
Shakkiliyan .. currier.
Sheṭṭi .. .. merchant.
Tási .. .. slave girl.
Tévéndira .. .. god of heaven, Indra.
Tévi .. .. goddess.
Ellamman .. .. a tutelary demoness.
Iḍaiyan .. .. herdsman.
Ísána .. .. regent of the North-east quarter.
Íṣuvara .. .. supreme lord, Shiva.
Kaḷḷan .. .. a caste.
Káḷi .. .. Párvati, the consort of Shiva.
Karaiyán .. .. inhabitant of the coast.
Káṭṭán .. .. a demon.
Káṭṭéri .. .. a demoness.
Kavuṇḍan .. .. Gauḍa tribe man.
Kón, Kónán .. shepherd king, pastor
Kottan .. .. mason, bricklayer.
Kiruttiṇa .. .. the incarnation of Vishnoo.
Kurumban .. .. shepherd tribe.
Kuṛuvan .. .. wild gipsy tribe.
Kusavan (Kuyavan). potter.
Labbe .. .. South Indian Mahomedan.
Lakkumi .. .. goddess of wealth.
Lingam .. .. emblem of Shiva.
Máppiḷḷai .. .. son-in-law, or Moplah.
Maṛavan .. .. Maṛava tribe man.
Máriyamman .. a village goddess.
Muthali .. .. a Veḷḷáḷar caste title.
Múrtti .. .. form, idol, image.
Nága .. .. cobra snake.
Náráyaṇa .. .. name of Vishnoo.
Náṭṭán .. .. countryman, rustic.
Náyakkan .. .. of Teloogoo race: a title.
Oṭṭan .. .. tank-digger.
Paḷḷan .. .. a low caste cultivator.
Paḷḷi .. .. a low caste laborer.
Pámban .. .. snake-wearer.
Páppán .. .. Brahmin.
Paṛaiyan .. .. a Pariah tribeman.
Paramésuvara .. supreme lord.
Paravan .. .. a subordinate caste of the southern coast.
Párppán .. .. Brahmin.

Perumál ..	.. the great one, Vishnoo.
Péy ..	.. devil.
Piḍári ..	.. demoness.
Piḷḷai ..	.. a Veḷḷáḷar caste title.
Piḷḷaiyár ..	.. the son of Shiva.
Pulaiyan ..	.. a caste.
Ráthá ..	.. Kṛishṇa's mistress.
Ráma ..	.. the incarnation of Vishnoo.
Reḍḍi ..	.. a Teloogoo tribe.
Ruttira ..	.. Shiva.
Sháliyan ..	.. weaver.
Sháman ..	.. an exorcist.
Sháṇán ..	.. toddy climber.
Sháttan ..	.. Aiyanár.
Sháttáni ..	.. a mendicant.
Shavunar ..	.. a Jeina.
Shemmán ..	.. shoemaker, currier.
Shéṇiyan ..	.. weaver.
Shiva ..	.. the deity.
Shómésuvar	.. moon lord.
Shonagan ..	.. a Yávanan.
Shirí ..	.. auspicious.
Shuppiramaniya	.. God of war.
Shuvámi ..	.. Lord.
Taççan ..	.. carpenter.
Táthan ..	.. Vishnoo mendicant.
Telungan ..	.. Teloogoo.
Tévan ..	.. Maṛavar caste title.
Tíyan ..	.. Islander.
Tóṭṭi ..	.. scavenger.
Tulukkan ..	.. Mussulman.
Vaḍugan ..	.. northerner, Teloogoo.
Valaiyan ..	.. netman, bird-catcher.
Vaṇigan ..	.. merchant, banyan.
Váṇiyan ..	.. oil-monger.
Vaṇṇán ..	.. washerman.
Vanniyan ..	.. Palli caste man.
Véḍan ..	.. hunter.
Veḷḷáḷan ..	.. Tamul cultivator tribe.
Veṭṭiyán ..	.. grave-digger, &c.
Vináyakkan	.. son of Shiva.
Vittunu ..	.. god, the preserver.
Yáthavan ..	.. a tribe.
Yavanar ..	.. Arabians.
Yénádi ..	.. a tribe.

(5) *Flora.*

Ál	.. banyan.
Arasu ..	.. peepal.
Arisi ..	.. rice.
Atti	.. fig (racemosa).
Átti	.. Bauhinia tomentosa.
Ávárai or ávirai	.. shrub (Cassia auriculata).
Avuri ..	.. indigo plant.
Elumiççai ..	.. lime fruit, lemon tree.
Íççam ..	.. wild date.
Ilavam ..	.. cotton tree, bombax.
Iluppai ..	.. Indian olive, Bassia longf.
Iñji	.. ginger plant.
Kathambu ..	.. tree (Eugenia racemosa).
Kaḍugu ..	.. mustard plant.
Kaḷḷi ..	.. milk plant, Euphorbia.
Karumbu ..	.. sugar-cane.
Kattari ..	.. egg-plant (Solanum mel.).
Kírai ..	.. greens.
Koḷḷu ..	.. kulti, gram, horse-corn.
Má, mán ..	.. mango.
Malalai ..	.. lotus, lily.
Mañjaḷ ..	.. turmeric.
Mávilingai	.. garlic pear, Cratœva Rox.
Mundiri ..	.. cashew-nut tree.
Múngil ..	.. bamboo.
Nával ..	.. jambo tree Calyptranthes.
Nel	.. (raw) rice, paddy.
Nelli ..	.. jungle gooseberry.
Neruñjil ..	.. plant, Tribulus terrestris.
Noççi ..	.. plant, Vitex negundo.
Nuṇá ..	.. Morinda umbellata.
Ómai ..	.. the mango.
Pálai ..	.. tree (Mimusops hexandra).
Panai ..	.. palmyra-palm.
Parutti ..	.. cotton plant.
Pilá	.. jack-fruit tree.
Pirambu ..	.. rattan cane.
Puḷi, puḷiya	.. tamarind.
Púvarasu ..	.. tulip tree, portia.
Támarai ..	.. lotus.
Tennai ..	.. cocoanut.
Tuḷasi ..	.. tulsi plant.
Tuvarai ..	.. lentil (dhál).
Vágai ..	.. siras tree (Acacia spec.).
Vanni ..	.. soma tree (Prosopis spic.).
Vélam, vél-	.. thorn.
Vémbu, véppam	.. margosa, neem.
Viḷá ..	.. wood-apple (Feronia E.).
Vilvam ..	.. bael-tree.

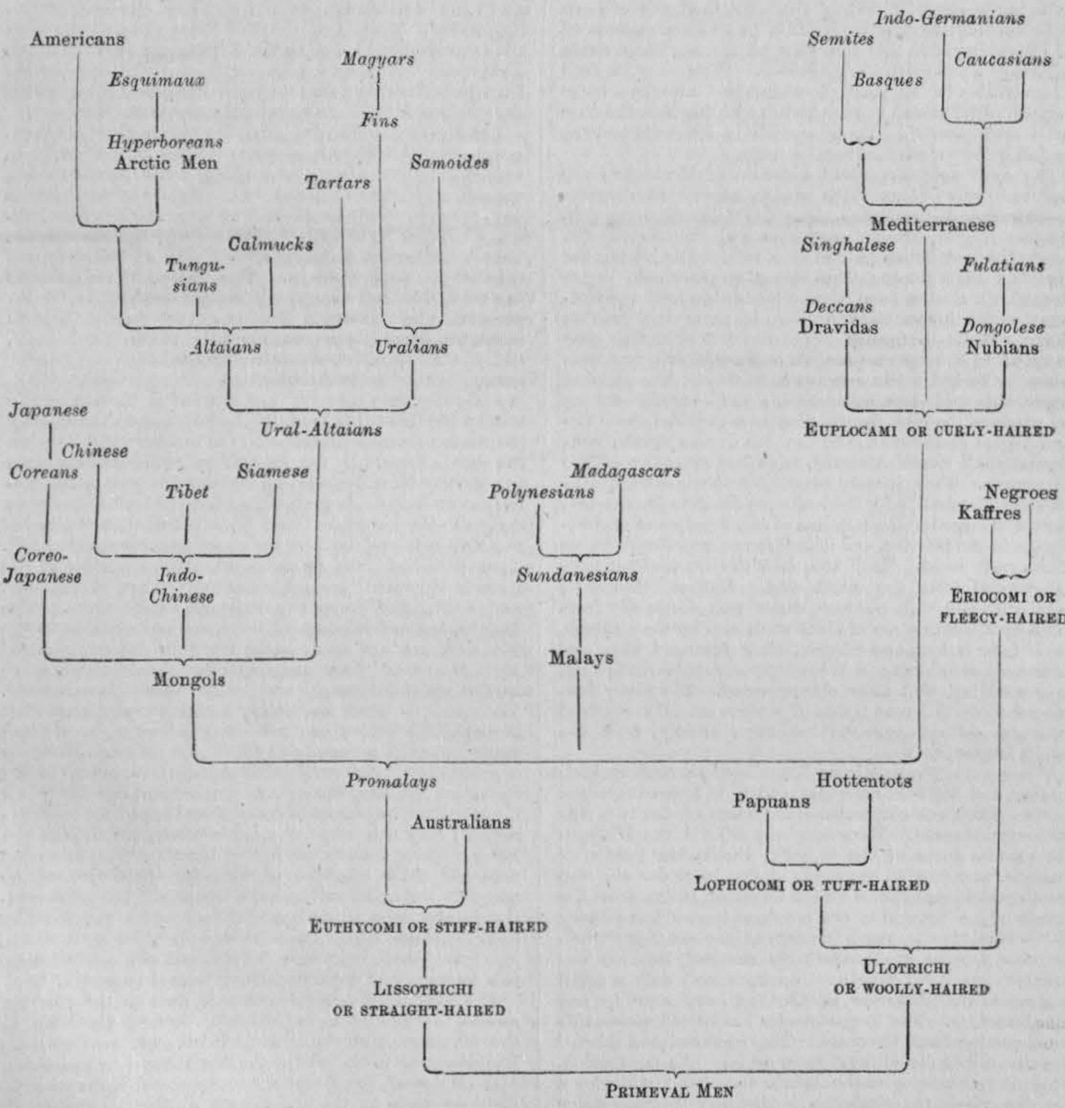
(6) *Fauna.*

Á	.. cow.
Áḍu ..	.. sheep.
Ánai ..	.. elephant.
Erumai ..	.. buffalo.
Kó	.. cow.
Kákkai ..	.. crow.
Kazhugu ..	.. eagle.
Kazhuthai ..	.. ass.
Kabi ..	.. ape.
Karaḍi ..	.. bear.
Kokku ..	.. crane.
Kózhi ..	.. fowl.
Kónáy or onáy	.. wolf
Kuthirai ..	.. horse.
Kuri ..	.. sheep.
Kuruvi ..	.. little bird.
Kuṭṭi ..	.. kid, kit, cub.
Máḍu ..	.. ox.
Mán ..	.. deer.
Mandi ..	.. monkey.
Mayil ..	.. peacock.
Mín	.. fish.
Musal, muyal	.. hare.
Nága ..	.. cobra snake.
Nari ..	.. fox, jackal.
Náy	.. dog.
Paśu ..	.. cow, cattle.
Pili or puli	.. tiger.
Púnai ..	.. cat.

APPENDIX No. XXXI.

PROFESSOR HAECKEL'S GENEALOGICAL LIST AND ACCOUNT OF THE RACES OF MAN, SHOWING THE POSITION OF THE TAMULIAN RACE.

The following table shows Professor Haeckel's scheme of the races of men viewed genealogically which was mentioned in the foot-note at Vol. I, chapter I, article on Ethnology. The entry at the bottom represents the assumed primeval man. Thence branch off six distinct types, separated from one another by the structure of the hair. The woolly-haired men sub-divide into tuft-haired and fleecy-haired, the straight-haired men sub-divide into stiff-haired and curly-haired; making six types in all. It will be seen that the three woolly-haired types are left aside at once forming a subordinate group of the human race. The three straight-haired types contain the great bulk of the superior races, and the curly-haired variety among which are placed the Tamuls comprises all the principal races known to civilization. The division by structure of the hair is represented in the scheme by small capital letters. The next division is into the twelve great human families, represented in the scheme by Roman letters. These are the twelve shown in the foot-note above mentioned. The Dravidian tribes form a distinct family by themselves. The numerous sub-divisions of the twelve great families are indicated in the scheme by italic letters. The Dravidians are divided into Deccans and Singhalese :—



Here follows an epitome of Professor Haeckel's notes regarding the above.

The Papuan (Homo Papua), of all the still living human species, is perhaps most closely related to the original primary form of woolly-haired men. This species now inhabits only the large island of New Guinea and the Archipelago of Melanesia lying to the east of it (Solomon's Islands, New Caledonia, the New Hebrides, etc.). But scattered remnants of it are also still found in the interior of the peninsula of Malacca, and likewise in many other islands of the large Pacific Archipelago; mostly in the inaccessible mountainous parts of the interior, and especially in the Philippine Islands. The but lately extinct Tasmanians, or the natives of Van Diemen's Land,

belonged to this group. From these and other circumstances it is clear that the Papuans in former times possessed a much larger area of distribution in South-Eastern Asia. They were driven out by the Malays and forced eastwards. The skin of all Papuans is of a black colour, sometimes more inclining to brown, sometimes more to blue. Their woolly hair grows in tufts, is spirally twisted in screws, and often more than a foot in length, so that it forms a strong woolly wig, which stands far out from the head. Their face, below the narrow depressed forehead, has a large turned-up nose and thick protruding lips. The peculiar form of their hair and speech so essentially distinguishes the Papuans from their straight-haired neighbours, from the Malays as well as from the Australians, that they must be regarded as an entirely distinct species.

Closely related to the Papuans by the tufted growth of hair, but geographically widely separated from them, are the Hottentots (Homo Hottentottus). They inhabit exclusively the southernmost part of Africa, the Cape and the adjacent parts, and have immigrated there from the north-east. The Hottentots, like their original kinsmen the Papuans, occupied in former times a much larger area (probably the whole of Eastern Africa), and are now approaching their extinction. Besides the genuine Hottentots—of whom there now exist only the two tribes of the Coraca (in the eastern Cape districts) and the Namaca (in the western portion of the Cape)—this species also includes the Bushmen (in the mountainous interior of the Cape). The woolly hair of all Hottentots grows in tufts, like brushes, as in the case of Papuans. Both species also agree in the posterior part of the body, in the female sex being specially inclined to form a great accumulation of fat (Steatopygia). But the skin of Hottentots is much lighter, of a yellowish brown colour. Their very flat face is remarkable for its small forehead and nose, and large nostrils. The mouth is very broad with big lips, the chin small and pointed. Their speech is characterised by several quite peculiar guttural sounds.

The next neighbours and kinsmen of Hottentots are Kaffres (Homo Cafer). This woolly-haired human species is, however, distinguished, like the following one (the genuine Negro), from Hottentots and Papuans by the woolly hair not being divided into tufts, but covering the head as a thick fleece. The colour of their skin varies through all shades, from the yellowish black of the Hottentot to the brown black or pure black of the genuine Negro. While in former times the race of Kaffres was assigned to a very small area of distribution, and was generally looked upon only as a variety of the genuine Negro, this species is now considered to include almost the whole of the inhabitants of equatorial Africa, from the 20th degree south latitude to the 4th degree north; consequently, all South Africans, with the exception of the Hottentots. They include especially the inhabitants of the Zulu, Zambesi, and Mozambique districts on the east coast, the large human families of the Beschuans or Setschuans in the interior, and the Herrero and Congo tribes of the west coast. They too, like the Hottentots, have immigrated from the north-east. Kaffres, who were usually classed with Negroes, differ very essentially from them by the formation of their skull and by their speech. Their face is long and narrow, their forehead high, and their nose prominent and frequently curved, their lips not so protruding, and their chin pointed. The many languages of the different tribes of Kaffres can all be derived from an extinct primeval language, namely, from the Bantu language.

The genuine Negro (Homo Niger)—when Kaffres, Hottentots, and Nubians are separated from him—at present forms a much less comprehensive human species than was formerly supposed. They now only include the Tibus, in the eastern parts of the Sahara; the Sudan people, or Sudians, who inhabit the south of that large desert; also the inhabitants of the Western Coast of Africa, from the mouth of the Senegal in the north, to beyond the estuary of the Niger in the south (Senegambians and Nigritians). Genuine Negroes are accordingly confined between the equator and the Tropic of Capricorn, and only a small portion of the Tibu tribe in the east have gone beyond this boundary. The Negro species has spread within this zone, coming from the east. The colour of the skin of genuine negroes is always more or less of a pure black. Their skin is velvety to the touch, and characterised by a peculiar offensive exhalation. Although Negroes agree with Kaffres in the formation of the woolly hair of the head, yet they differ essentially in the formation of their face. Their forehead is flatter and lower, their nose broad and thick, not prominent, their lips large and protruding, and their chin very short. Genuine Negroes are moreover distinguished by very thin calves and very long arms. This species of men must have branched into many separate tribes at a very early period, for their numerous and entirely distinct languages can in no way be traced to one primeval language.

To the four woolly-haired species of men just discussed, the straight-haired men (Homines Lissotrichi) stand in strong contrast. Five of the eight species of the latter, can be comprised as stiff-haired (Euthycomi) and three as curly-haired (Euplocami). There may here in the first place be considered the former, which includes the primeval inhabitants of the greater part of Asia and the whole of America.

The lowest stage of all straight-haired men, and on the whole perhaps of all the still living human species, is occupied by the Australian, or Austral-Negro (Homo Australis). This species seems to be exclusively confined to the large island of Australia; it resembles the genuine African Negro by its black or brownish black hair, and the offensive smell of the skin, by its very slanting teeth and long-headed form of skull, the receding forehead, broad nose, protruding lips, and also by the entire absence of calves. On the other hand Australians differ from genuine Negroes as well as from their nearest neighbours the Papuans, by the much weaker and more delicate structure of their bones, and more especially by the formation of the hair of their heads, which is not woolly and frizzled, but either quite lank or only slightly curled. The very low stage of bodily and mental development of the Australian is perhaps not altogether original, but has arisen by degeneration, that is, by adaptation to the very unfavourable conditions of existence in Australia. They probably immigrated to their present home from the north or north-west, as a very early off-shoot of the Euthycomi. They are probably more closely related to the Dravidas, and hence to the Euplocami, than the other Euthycomi The very peculiar language of the Australians is broken up into numerous small branches, which are grouped into a northern and a southern class.

The Malay (Homo Malayus), the brown race of ethnographers, although not a large species, is important in regard to its genealogy. An extinct south Asiatic human species, very closely related to the Malays of the present day, must probably be looked upon as the common primary form of this and the following higher human species. This hypothetical primary species may be called Primeval Malays, or Promalays. The Malays of the present day are divided into two widely dispersed races, the Sundanesians, who inhabit Malacca, the Sunda Islands (Sumatra, Java, Borneo, etc.) and the Philippine Islands, and the Polynesians, who are dispersed over the greater portion of the Pacific Archipelago. The northern boundary of their wide tract of distribution is formed on the east by the Sandwich Islands (Hawai), and on the west by the Marian Islands (Ladrones); the southern boundary on the east is formed by the Mangareva Archipelago, and on the west by New Zealand. The inhabitants of Madagascar are an especial branch of Sundanesians who have been driven to the far west. This wide pelagic distribution of the Malays is explained by their partiality for nautical life. Their primeval home is the south-eastern portion of the Asiatic continent, from whence they spread to the east and south, and drove the Papuans before them. The Malays, in the formation of body, are nearest akin to the Mongols, but are also nearly allied to the curly-haired Mediterranese. They are generally short-headed, more rarely medium-headed, and very rarely long-headed. Their hair is black and stiff, but frequently somewhat curled. The colour of their skin is brown, sometimes yellowish, or of a cinnamon colour, sometimes reddish or copper brown, more rarely dark brown. In regard to the formation of face, Malays in a great measure form an intermediate stage between the Mongols and the Mediterranese; they can frequently not be distinguished from the latter. Their face is generally broad, with prominent nose and thick lips, the opening for their eyes not so narrowly cut and slanting as in Mongols. The near relationship between all Malays and Polynesians is proved by their language, which indeed broke up at an early period into many small branches, but still can always be traced to a common and quite peculiar primeval language.

The Mongol (Homo Mongolus) is, next to the Mediterranese, the richest in individuals. Among them are all the inhabitants of the Asiatic Continent, excepting the Hyperboreans in the north, the few Malays in the southeast (Malacca), the Dravidas in Southern India, and the Mediterranese in the south-west of the continent. In Europe this species of men is represented by the Fins and Lapps in the north, by the Osmanlis in Turkey, and the Magyars in Hungary. The colour of the Mongol is always distinguished by a yellow tone, sometimes a light pea green, or even white, sometimes a darker brownish yellow. Their hair is always stiff and black. The form of their skull is, in the great majority of cases, decidedly short

(especially in Kalmucks, Baschkirs, etc.) but frequently of medium length (Tartars, Chinese, etc.). But among them genuine long-headed men are never met with. The narrow openings of their eyes, which are generally slanting, their prominent cheek-bones, broad noses, and thick lips are very striking, as well as the round form of their faces. The language of the Mongols is probably traceable to a common primeval language; but the monosyllabic languages of the Indo-Chinese races, and the polysyllabic languages of the other Mongol races, stand in contrast as two main branches which separated at an early time. The monosyllabic tribes of the Indo-Chinese include the Tibetans, Birmans, Siamese, and Chinese. The other polysyllabic Mongols are divided into three races, namely: (1) the Coreo-Japanese (Coreans and Japanese); (2) the Altaians (Tartars, Kirgises, Kalmucks, Buriats, Tunjusians); and (3) the Uralians (Samoiedes, Fins). The Magyars of Hungary are descended from the Fins.

The Polar men (Homo Arcticus) must be looked upon as a branch of the Mongolian human species. Under this name are comprised the inhabitants of the Arctic Polar lands of both hemispheres, the Esquimaux (and Greenlanders) in North America, and the Hyperboreans in north-eastern Asia (Jukagirs, Tschuksches, Kuriaks, and Kamtschads). By adaptation to the Polar climate, this human race has become so peculiarly transformed that it may be considered as a distinct species. Their stature is low and of a square build; the formation of their skull of medium size or even long; their eyes narrow and slanting like the Mongols; their cheek-bones prominent, and their mouth wide. Their hair is stiff and black; the colour of their skin is of a light or dark brown tinge, sometimes more inclined to white or to yellow, like that of the Mongols, sometimes more to red, like that of the Americans. The languages of Polar men are as yet little known, but they differ both from the Mongolian and from the American. Polar men must probably be regarded as a remnant and a peculiarly adapted branch of that tribe of Mongols which emigrated from north-eastern Asia to North America, and populated that part of the earth.

At the time of the discovery of America, that part of the earth was peopled (setting aside the Esquimaux) only by a single human species, namely, by the Redskins, or Americans (Homo Americanus). Of all other human species they are most closely related to the two preceding. The form of their skull is generally a medium one, rarely short or long-headed. Their forehead broad and very low; their nose large, prominent, and frequently aquiline; their cheek-bones prominent; their lips rather thin than thick. The colour of their skin is characterised by a red fundamental tint, which is, however, sometimes pure copper-red, or light red, sometimes a deeper reddish brown, yellow brown or olive brown. The numerous languages of the various American races and tribes are extremely different, yet they agree in their original foundation. Probably America was first peopled from north-eastern Asia by the same tribe of Mongols from whom the Polar men (Hyperboreans and Esquimaux) have also branched. This tribe first spread in North America, and from thence migrated over the isthmus of Central America down to South America, at the extreme south of which the species degenerated very much by adaptation to the very unfavourable conditions of existence. But it is also possible that Mongols and Polynesians immigrated from the west and mixed with the former tribe. In any case the aborigines of America came over from the Old World.

The three human species still to be considered—the Dravidas, Nubians, and Mediterranese—agree in several characteristics which seem to establish a close relationship between them, and distinguish them from the preceding species. The chief of these characteristics is the strong development of the beard, which in all other species is either entirely wanting or but very scanty. The hair of their heads is generally not so lank and smooth as in the five preceding species, but in most cases more or less curly. Other characteristics also seem to favour their being classed in one main group of curly-haired men (Euplocami).

The Dravida man (Homo Dravida) has caused much trouble to ethnologists until the recognition of his distinct individuality. According to present research he seems to stand very near the common primary form of the Euplocami, and perhaps of Lissotrichi. At present this primeval species is only represented by the population of Southern India and by the neighbouring inhabitants of the mountains on the north-east of Ceylon. But in earlier times this race seems to have spread northwards over the whole of Hindostan, and possibly even further. It shows, on the one hand, traits of relationship to the Australians and Malays; on the other, to the Mongols and Mediterranese. Their skin is either of a light or dark brown colour; in some tribes, of a yellowish brown, in others, almost black brown. The hair of their heads, as in Mediterranese, is more or less curled, neither quite smooth, like that of the Euthycomi, nor actually woolly, like that of the Ulotrichi. The strong development of the beard is also like that of the Mediterranese. The oval form of face seems partly to be akin to that of the Malays, partly to that of the Mediterranese. The nose is prominent and pyramidal, the lips are slightly protruding. The language no doubt originally derived from a peculiar primeval tongue.

The Nubian (Homo Nuba) has caused ethnographers no fewer difficulties than the Dravida species. By this name is understood not merely the real Nubians (Schangallas, or Dongolese), but also their near kinsmen, the Fulas, or Fellatas. The real Nubians inhabit the countries of the Upper Nile (Dongola, Schangalla, Barabra, Cordofan); the Fulas, or Fellatas, on the other hand, have thence migrated far westward, and now inhabit a broad tract in the south of the western Sahara, hemmed in between the Soudanians in the north and the Nigritos in the south. The Nubian and Fula races are generally either classed with Negroes or with the Hamitic races (thus with Mediterranese), but are so essentially different from both that they must be regarded as a distinct species. In former times they very probably occupied a large part of north-eastern Africa. The skin of the Nubian and Fula races is of a yellowish or reddish brown colour, more rarely dark brown or approaching to black. Their hair is not woolly but curled, frequently even quite smooth; its colour is dark brown or black. Their beard is much more strongly developed than in Negroes. The oval formation of their faces approaches more to the Mediterranean than to the Negro type. Their forehead is high and broad, their nose prominent and not flat, their lips not so protruding as in the Negro. The language of the Nubian races seems to possess no relationship to those of genuine Negroes.

The Caucasian, or Mediterranean man (Homo Mediterraneus), has from time immemorial been placed at the head of all races of men, as the most highly developed and perfect. It is generally called the Caucasian race, but as among all the varieties of the species, the Caucasian branch is the least important, the much more suitable appellation of Mediterranean, or Midland men, is here adopted. For the most important varieties of this species which are moreover the most eminent actors in Universal History, first rose to a flourishing condition on the shores of the Mediterranean. The former area of the distribution of this species is expressed by the name of "Indo-Atlantic" species, whereas at present it is spread over the whole earth, and is overcoming most of the other species in the struggle for existence. In bodily as well as in mental qualities, no other human species can equal the Mediterranean.

The characteristics which distinguish the Mediterranean from the other species of the race are well known. The chief of the external features is the light colour of the skin, which however exhibits all shades, from pure white or reddish white, through yellow or yellowish brown to dark brown or even black brown. The growth of the hair is generally strong, the hair of the head more or less curly, the hair of the beard stronger than in any of the other species. The form of the skull shows a great development in breadth; medium heads predominate upon the whole, but long and short heads are also widely distributed. It is only in this one species of men that the body as a whole attains that symmetry in all parts, and that equal development, which is allowed as a type of perfect human beauty. The languages of the races of this species cannot be traced to a single common primeval language; and there must be assumed at least four radically different primeval languages. In accordance with this there must also be assumed within this one species four different races, which are only connected at their root. Two of these races, the Basques and Caucasians, now exist only as small remnants. The Basques, which in earlier times peopled the whole of Spain and the south of France, now inhabit but a narrow tract of land on the northern coast of Spain, on the Bay of Biscay. The remnant of the Caucasian race (the Daghestans, Tschercassians, Mingrelians, and Georgians) are now confined to the districts of Mount Caucasus. The language of the Caucasians as well as that of the Basques is entirely peculiar, and can be traced neither to the Semitic nor to the Indo-Germanic primeval languages.

Even the languages of the two principal races of the Mediterranean species—the Semitic and Indo-Germanic—cannot be traced to a common origin, and consequently these two races must have separated at a very early period. Semites and Indo-Germani are descended from different primeval men. The Semitic race likewise separated at a very early period into two diverging branches, namely, into the Egyptian and Arabic branches. The Egyptian, or African branch, the Dyssemites—which

sometimes under the name of Hamites are entirely separated from the Semites—embraces the large group of Berbers, who occupy the whole of North Africa, and in earlier times also peopled the Canary Islands, and, finally, also the group of the Ethiopians, the Bedsha, Galla, Danakil, Somali, and other tribes which occupy all the north-eastern shores of Africa as far as the equator. The Arabic, or Asiatic branch, that is, the Eusemites, also called Semites in a narrow sense, embrace the inhabitants of the large Arabian peninsula, the primeval family of genuine Arabians ("primeval type of the Semites"), and also the most highly developed Semitic groups, the Jews, or Hebrews, and the Aramæans—the Syrians and Chaldæans. A colony of the southern Arabs (the Himjarites), which crossed the Straits of Bab-el-Mandeb, has peopled Abyssinia.

Lastly, the Indo-Germanic race, which has far surpassed all the other races of men in mental development, separated at a very early period, like the Semitic, into two diverging branches, the Ario-Romaic and the Slavo-Germanic branches. Out of the former arose on the one hand the Arians (Indians and Iranians), on the other the Græco-Roman (Greeks and Albanians, Italians and Kelts). Out of the Slavo-Germanic branch were developed on the one hand the Slavonians (Russian, Bulgarian, Tchec, and Baltic tribes), on the other the Germani (Scandinavians and Germans, Netherlanders, and Anglo-Saxons). The further ramifications of the Indo-Germanic race must be traced in detail on the basis of comparative philology.

The total number of human individuals in the world at present amounts to between 1,300 and 1,400 millions. According to an approximate estimate, as far as such a thing is possible, 1,200 millions of these are straight-haired men, only about 150 millions woolly-haired. The most highly developed species, Mongols and Mediterranese, far surpass all the other human species in numbers of individuals, for each of them alone comprises about 550 millions. The relative number of the twelve species fluctuates every year, and in the struggle for life the more highly developed, the more favoured and larger groups of forms, possess the tendency to spread at the expense of the lower, more backward, and smaller groups. Thus the Mediterranean species, and within it the Indo-Germanic, have by means of the higher development of their brain surpassed all the other races and species in the struggle for life, and have already spread their dominion over the whole globe. It is only the Mongolian species which can at all successfully, and in certain respects, compete with the Mediterranean. Within the tropical regions, Negroes, Kaffres, and Nubians, as also the Malays and Dravidas, are in some measure protected against the encroachments of the Indo-Germanic tribes by their being better adapted for a hot climate. The case of the arctic tribes of the polar regions is similar. But the other races, which as it is are very much diminished in number, will sooner or later completely succumb in the struggle for existence to the superiority of the Mediterranean races. The American and Australian tribes are even now fast approaching their complete extinction, and the same may be said of the Papuans and Hottentots.

APPENDIX No. XXXII.

SHORT ACCOUNT OF THE CASTES AND TRIBES OF THE PRESIDENCY ARRANGED ACCORDING TO CERTAIN MAIN GROUPS.

NOTE.—*For explanation of the classification here adopted, see the article on Ethnology in Volume I.*

(a) BRAHMINS.

Distribution.—The number of persons classified in the census returns as Brahmins is 1,122,068, of whom 555,722 are males and 566,346 are females, the proportion of the latter to the former being 101·9 to 100 males. Brahmins are most numerous in Canara, and in the northern districts of the Presidency. In South Canara they are 13·35 per cent., and in Ganjam they constitute about 7·58 per cent. of the Hindoo population. In the Godavery district they are about 5·11 per cent.; in the Kistna about 6·65 per cent.; in Nellore about 5·01 per cent.; in Chingleput about 3·41 per cent.; in South Arcot about 2 per cent. In the Tanjore district still further south, there is a sudden rise to about 6·94 per cent. In Trichinopoly again the proportion diminishes to 3·04 per cent.; in Madura only 2·19 per cent. In Tinnevelly, the most southern district, about 4·03 per cent. The Brahmins are rare in Coimbatore and Salem, where the proportions are only some 1·85 per cent. For the whole Presidency the average proportion of Brahmins is, by the census of 1881, 3·94 per cent. of the Hindoo population. The unequal distribution of the Brahmin population is partly the result of the occupation of favourite sites by the ancient Aryan settlers, and partly the result of the localities in question being favourable to their multiplication. Very few South Indian Brahmins have kept their blood free from intermixture, and the causes at work in connection with their increase in numbers have been various. The valleys and deltas of the Godavery, Kistna, Cauvery, Veigay, and Tambrapurny have been favourite places of resort for this caste. On the western side of India the Brahmins passed down from the Concan and Deccan in comparatively recent times, and they settled more abundantly in Canara than they did in the southern district of Malabar. The Malabar Brahmins are thought to have arisen out of a fishing caste. But in all probability they represent an early immigration, subsequently isolated and cut off from the rest of India by geographical position. The Dravidian rulers encouraged the migrations of this learned caste by grants of lands, and by establishing temples and schools under their auspices. The Brahmins made no progress in the south prior to the decline of the Booddhist religion.

Religious divisions.—The religious divisions of the Brahmins in this Presidency are, as in all other castes, broadly those of Shiveites, Veishnavites, and Lingayets, but the professors of other religions sometimes class themselves under the head of Brahmins. Jains are of course not Brahmins, but some Jains even have been returned in the census lists as "Jain Brahmins." The Lingayet Brahmins are very few in number. They belong to that division of the Jangams termed Aradhyas. They accept the doctrines of the Jangams, except that they retain their caste, and wear the sacred thread. The Native Christian Brahmins are found principally in South Canara. They were originally from the Concan, and, it is stated, were forcibly converted to Christianity by the Portuguese. They still retain some caste customs, such as refraining from eating the flesh of the cow, &c., but are said to be extremely observant of the rites and ceremonies of the Romish Church. The Brahmins who have embraced Protestantism are very few in number. The following are the numbers of each sect:—

	Numbers.	Percentage of each sect.
Shiveites	369,013	32·88
Veishnavites	281,807	25·15
Lingayets	438	·03
Others	470,810	41·95
Total ...	1,122,068	100

The worship of Shiva, which is among the lower classes the worship of destructive divinities, is the popular religion amongst the Brahmins of the south of India. In the Ganjam district, close upon the scene of the worship of Vishnoo in his incarnation as Juggernaut, the Veishnavites amongst the Brahmins are in excess of the Shiveites, and the same result is found in the Bellary and Chingleput districts, in both of which celebrated Vishnoo temples are located; but in every other district the Shiveite form of worship predominates. The destructive aspect of divine power was the only one which had any affinity to the native religions of the south, and was therefore the only one utilized by the Brahmins in framing the religious code of this part of the country. The Brahmin caste itself however cultivates Sheivism only in its abstract and philosophical forms. The Brahmins give no worship whatever to the grama devata or village gods.

Philosophical divisions.—There are at present three great divisions amongst the Brahmins as regards their religious philosophy. These are the Smartas, Madhwas, and Shree Veishnavas. The Smartas are the followers of Shunkara Acharya. While honouring the whole Hindoo triad, they especially worship Shiva. In philosophy they are Adweitas; that is to say, they believe that there is but one soul in the universe, the soul of man being identical with that of God. The Madhwas are the followers of Madhwacharya and ascribe supreme honour to Vishnoo. They are Dweitas in philosophy, and believe that the human soul is distinct from that of God. The Shree Veishnavas are the disciples and followers of Ramanooja, and are, as their name implies, worshippers of Vishnoo. They hold philosophical views somewhat different from the other two sects. While they believe that the divine and human souls are in some respects identical, yet for all human purposes they are regarded as distinct, and in life the human soul is subordinate and responsible to the divine soul. These are "Vishishtadweitas," or "Adweitas with a difference." These philosophical speculations on the nature of the soul and its relations with the Supreme are derived mostly from the views of the three great apostles of the Vedantist schools above mentioned, who taught and flourished in Southern India. Shunkara Acharya taught in the ninth century, Ramanooja in the twelfth century, and Madhwacharya a little later. The distinctions are vital amongst Brahmins, but have no place in the theology of the common people.

Occupation.—The functions of the priestly caste, as laid down in the Code of Menoo, were—(1) Yajana, i.e., performances of holy sacrifices; (2) Yaujana, assisting at the performance of such by others; (3) Adhyayana, i.e., reading the Vedas; (4) Adhyaupana, i.e., teaching the Vedas; (5) Dauna, i.e., making gifts; and (6) Pratigraha, accepting gifts. If any of these means of existence failed in supporting Brahmins, they might be permitted to resort to the occupations of the inferior classes, with certain restrictions as to the articles in which they might trade, supposing them to select the occupation of a Veisya. A reference to the recent census tables however shows that agriculture or at least land-holding occupies more than a third of the caste in Southern India. The male Brahmin population of the Presidency is 555,722, and of these 61·9 per cent. are classed as employed. Thus:—

		Proportion in 100.
Professional.	Government Civil Service.	1·6
	Military or Police Service.	0·1
	Learned Professions ...	3·4
	Minor do. ...	10·2
Domestic ...	Personal Service ...	3·6
Commercial.	Traders	2·4
	Conveyors	0·2
Agricultural.	Cultivators	24·2
Industrial ...	Dress	0·03
	Food	0·3
	Metals	0·003
	Construction	0·01
	Books	0·007
	Household goods ...	0·003
	Combustibles ...	0·002
Indefinite and Unproductive.	Labourers	1·0
	Property	11·7
	Unproductive	2·9
	Others	0·3
		61·9

One decimal six per cent. of male Brahmins are employed in the civil service of the Government. In Bellary 4·6 per cent. of the Brahmins are thus employed, while in the Ganjam district there are only ·4 per cent. The reason of the great difference here is that in Ganjam the writer or accountant castes constitute the greater number of the village officials; while in Bellary, there were no hereditary village officials of the writer castes, when the English first occupied the country, and Brahmins as the only educated people were inducted into the office. The Brahmin element is strong in all the higher offices open to natives of India in the civil departments. Indeed in every department of the administration there are representatives of this class, who have been the first to profit by the opportunities offered to the people of India of educating themselves in occidental knowledge. In the military and police departments of Government the Brahmins number only ·1 per cent., and nearly all these belong to the police. Military duty is not congenial to the southern Brahmins. In the learned and minor professions there are a considerable proportion of Brahmins employed; some as family and temple priests, some as astrologers, some as calendar Brahmins or almanack makers, some as lawyers and doctors. In trade and commerce about 13,000 find occupation. The bulk however of this community are, as above seen, occupiers and cultivators of land, or derive their income from the possession of landed property. 24·2 per cent. of the male Brahmins are classed as cultivators, and 11·7 per cent. as deriving income from property. As regards cultivating Brahmins, their numbers vary greatly in different districts. In Tinnevelly 41·5 per cent. of the Brahmins are cultivators, in Chingleput 40·5 per cent., in South Canara 39·4 per cent., while in Malabar, Cuddapah, and Vizagapatam only 8·2, 7·5, and 6·8 per cent. respectively are engaged in such occupations. In the southern districts, where the ryotwarry system of tenure prevails, the Brahmin landholders are for the most part described in the census returns as "cultivators." As a rule, they do not work with their own hands in agricultural pursuits, but employ labourers of the once servile races to till the ground, or enter into arrangements with them, to enjoy a share of the profits of cultivation. In the northern districts, and in Tanjore, the Brahmin landowners are chiefly the "owners" of landed property. The following abstract will show the proportions of male Brahmins in the several districts who either cultivate land under their own supervision, or derive their incomes from landed property;—

	Occupied in Cultivation. Proportion per cent.	Occupied in Property. Proportion per cent.
Arcot, North	31·2	4·4
Arcot, South	36·4	1·3
Bellary	18·4	5·3
Canara, South	39·4	00·2
Chingleput	40·5	0·5
Coimbatore	22·9	0·1
Cuddapah	7·5	23·9
Ganjam	30·9	4·2
Godavery	11·0	39·3
Kistna	26·9	12·9
Kurnool	9·9	25·1
Madras	1·1	2·9
Madura	38·7	0·7
Malabar	8·2	1·4
Neilgherries	6·5	...
Nellore	26·7	10·9
Salem	26·8	1·8
Tanjore	12·0	24·6
Tinnevelly	41·5	0·4
Trichinopoly	31·6	0·4
Vizagapatam	6·8	35·3
	24·2	11·7

Brahmins have in fact changed their position from that of priests, teachers, and beggars, to that of a landed aristocracy. As a rule, Brahmin cultivators have obtained the best lands in the country. Upon the various industrial employments, Brahmins, except in the Presidency town, have hardly entered at all. As labourers, without any distinct occupation, they are numerous only in the Ganjam district, where, it is said, Brahmins have been, in past times, formed out of the inferior castes. The number of Brahmins who subsist on alms, and lead a mendicant life, according to the primary rules of their order, is now in the south of India only 2·9 out of a hundred males.

Larger divisions according to origin.—Northern Brahmins are called Gowda Brahmins. Southern Brahmins are called Dravida Brahmins. These terms are held to indicate their origin. The Puncha Gowra and Puncha Dravida divisions are as follows:—

Gowras.	*Dravidas.*
1. Cunyacoobja.	1. Andhra.
2. Saraswat.	2. Mahratta.
3. Gowra.	3. Dravida proper.
4. Ootkala.	4. Carnataca.
5. Meitila.	5. Goorjara.

These divisions are again sub-divided into numerous others, named after districts, petty towns, or villages. The Gowra and Dravida Brahmins do not eat together or intermarry, and the Gowra tribes are entirely distinct from one another, but the Dravida or Southern Brahmins, as regards the four first divisions, may eat together, although they rarely intermarry. There are few Gowra Brahmins in this Presidency. The Andhra or Telinga Brahmins have, according to Sherring, eight sub-divisions, who do not eat together or intermarry. They are found mostly in the Northern or Ceded districts, but some have migrated to the south or Tamul districts. The Mahratta Brahmins are the most intellectual and energetic division of the caste. When the Mahrattas overran the south and established a kingdom in Tanjore, the Brahmins settled in large numbers wherever they could obtain lands, and the descendants of these Mahratta Brahmins have always occupied a prominent place in the civil administration of the southern districts. They are essentially a fair-complexioned people. Some have even light greyish eyes and aquiline features. The Dravida Brahmins proper are those who inhabit the Tamul country. These, as a rule, are scarcely distinguishable in features or complexion from the other castes of the south. In Malabar the Brahmins are called Numboory, and they have no communication with Tamul Brahmins. The Numboories are a remarkably fine, and physically handsome, race of people, and the legend of their origin from a race of fishermen is not to be credited. The Carnataca Brahmins are chiefly found in Mysore, Bellary and Canara. There are about eight divisions amongst them, named principally after the locality of residence. They are mainly cultivators and village servants.

Divisions according to Gotras or families.—Of the Gotras, or families of the Brahmins, it is impossible to speak with certainty. Some authorities give as many as 155, but others give much less numbers. The original Gotras were named after seven famous Rishies left to people the earth after the deluge. At the present day it is the practice to describe the classes of Brahmins according to the country or village from which they first migrated.

Hence the sub-divisions are numerous and confused. The names of some of these Gotras are appended :—(1) Casyap, (2) Bharadwaja, (3) Vasishta, (4) Gowtama, (5) Vishwamitra, (6) Atreya, (7) Bhadrayauna, (8) Agastya, (9) Jamadagny, (10) Swatatracapy, (11) Causica, (12) Shreevatsa, (13) Bhaurgava, (14) Paraushara, (15) Canva, (16) Meitreya.

Customs.—The widows of Brahmins are not permitted to remarry, nor is concubinage tolerated as a caste practice. They burn their dead; except young children and mendicants, who are usually buried. Some Brahmins are so far vegetarians, that their animal diet is restricted to milk, curds, and butter. Others eat mutton, goat-flesh, and fish; but this sparingly. As a rule they avoid intoxicating beverages; but in large towns, this abstinence is not universal. Brahmins are not fond of an active life of physical exertion.

(b) CSHATRIYAS.

Distribution.—The modern representatives of this order of the community often generically called Rajpoots, are not numerous in Southern India. The census returns account for only 193,550 of them in the whole Presidency, and of these 98,290 are males and 95,260 females, the proportion of the latter being only 96·9 to 100 males. The Cshatriyas form only 0·68 per cent. of the Hindoo population. They are most numerous in Godavery, Cuddapah, North Arcot, South Canara, and the town of Madras. In the south of Tinnevelly there is a colony of Rajpoots in Shreevillipootore talook, where there are some thousands of them, but how, and when they came to settle there, has not been ascertained. In the districts where there were formerly large independent territories, it was the custom of the rulers to employ Rajpoots as soldiers and peons, and thus their southward migration would be accounted for.

Sub-divisions.—The sub-divisions of the Cshatriyas found in this part of India are chiefly the following:—Arasar (Tamul), king's caste; Ooriyah Cshatriya, Cshatriyas of the Ooriyah country; Bondilivaundloo, Rajpoots of spurious origin; Bhatrazooloo, attendants who sing the praises of kings; Menoo, name implying descent from a Menoo; Pandyacoolam, descendants of Pandyas; Rajavaur (Teloogoo) king's caste; Nandamandala Razooloo, of the Nandamandala country; Moorikinautirazooloo, named from the locality; Sooryavamshapoorazooloo, of the Solar race. Of these, the most numerous are the Bondily and Bhatraz sub-castes. Theoretically these too are divided into Gowra and Dravida Cshatriyas. They have gotras also, like the Brahmins.

Occupation.—The Rajpoots are nowhere an important class of the community. They are largely engaged in agriculture; some own estates and live on the income derived from their property; a few are in the civil and military service of the Government; more are in personal service, and occupied as laborers, and some in trade. 65·2 per cent. of the males are entered in the census columns as engaged in some employment. In their general customs they resemble the Brahmins more than any other class. They worship the village deities as well as Shiva and Vishnoo. Some of the class are given to Suktee worship. They observe the Holy and Dusserah festivals, and the festivals connected with Shiva, Vishnoo, or Suktee worship. They for the most part burn their dead, except young children, and their widows are not remarried. The rulers of Southern India in ancient times made no claim to descent from the warrior castes. Their origin was of much greater antiquity. Rama, in his invasion of Ceylon, was assisted not literally by an army of monkeys, but by the dark-skinned and comparatively ill-favoured tribes of the south, a fierce and warlike people then, as now. In Volume I mention has been made of the tendency of the numerically stronger race to assume the dominant characteristics, in the mixture of superior and inferior races. The degradation of the Rajpoots in the south as in the north, is the result of intermixture with lower races.

Bondily Rajpoots.—The Bondily Rajpoots are said to obtain their name from their country of origin, Bundelcund. The name is the same, or nearly the same, in all the Dravidian languages. They claim to be Rajpoots, but appear to have degenerated. The Bondily Rajpoots are generally cultivators, peons, or the bodyguards of zemindars.

Bhatrazooloo.—The Bhatrazooloo hold a debateable position amongst the castes. Some assert that they have no claim to be considered Cshatriyas, while others admit the claim; and, as a fact, they wear the pavitra, or sacred thread. Their caste name implies their position. They are the attendants who sing the praises of the Cshatriya race, or indeed of great men in general. They are a wandering class, gaining a living by attaching themselves to the establishments of persons of consideration, or in chanting the folk lore of the people. They are mostly Vishnoo worshippers, though some worship village deities.

(c) TRADING CASTES.

Distribution.—These are often generically called Chetties. In the Madras Presidency 640,047 persons, or 2·25 per cent. of the Hindoo population, have been returned as belonging to the various trading castes. However none of these are of Aryan descent though wearing the sacred thread, and often taking the old Aryan title of Veisyas. Some of them are clearly foreigners, and are known as Marwarries, Goozeratties, Lalahs, &c. The great majority of Chetties are clearly of aboriginal descent. They have settled chiefly in places where trade and commerce have attracted them, and are by no means equally distributed throughout the country. They are more numerous in proportion to other classes in Kistna, Nellore, Cuddapah, Kurnool, Madura, Coimbatore, and most so of all in the town of Madras. Every town has a proportion of them. The Chetties are few in number in South Canara district only, and here the trade of the country seems to have fallen into other hands, i.e., Brahmins, Mussalmans, and others. In Canara and Malabar, where few of them appear as traders, a larger proportion are cultivators. They advance money on growing crops of pepper, ginger, turmeric, and other produce, superintend the cultivation themselves, and ultimately obtain possession of the land. The proportions of the sexes amongst the trading castes are almost equal; there are 101 females to 100 males.

Sub-divisions.—The sub-divisions of these trading castes are numerous. In the census returns they are entered under about ninety different designations, but most of these refer to the localities inhabited. The greater part of the people are classified as "Chetties," or "Berichetties," and "Comaties" (from different localities), Bunniahs, Marwarries, Oilmongers, and Cashcaurar, or bankers.

Religion and customs.—In religion the Shiveites generally predominate in the trading castes. Among the Comaties some worship Vishnoo and some Shiva; and a few are Lingayets. However they also worship village deities. These castes are averse to Government employment, civil or military; especially the latter.

Comaties.—The Comaty Chetties claim to be Veisyas more than the other sub-divisions. They are generally said to have migrated from some place in the north, and a few authorities mention Penoocondah, which was a place of importance under the Vijianugger dynasty. They are divided into gotras or clans, and most authorities agree in fixing the number at upwards of one hundred. No list of the Gotras has been made. The Comaties burn their dead, except in the case of young children, unmarried people, and ascetics, who are buried. They do not approve of widow re-marriage.

Oil merchants.—The Vauniyar, or oil pressers and dealers, form another important section of the traders. In Tamul they are called Vauniyar; in Canarese Gaunigar; in Teloogoo Gaundlavaundloo. These people for the most part deal in oil seeds and press oil, but some cultivate also. They worship either Shiva or Vishnoo, and most of them village deities as well. In funeral rites they practise either burying and burning, as may be the custom of the caste in the locality where they reside. In the Carnatic the widows are not allowed to re-marry, but in Canara, they may do so. In this district also they worship Bhootas or evil spirits. The oilmongers specially wish to be considered Veisyas, but even in Menoo's time people of this occupation were described as one of the mixed castes.

Bankers and money lenders.—In the south these are generally described as Cashcaurar. This division of the people are mostly fair-complexioned, and with intellectual features. They are for the most part foreigners to the south. Their monetary transactions are often on a large scale. Their general reputation for integrity stands high, and it hardly ever occurs that their drafts are dishonoured. Amongst those who borrow money at usurious interest, with small prospect of repaying it, the native money dealers are accounted hard and avaricious; but no worse charge is made against them than that they desire high interest, and a punctual and regular repayment of advances.

(d) AGRICULTURAL CASTES.

Distribution.—They are often called generically Vellaular, though these are really only one of the numerous agricultural tribes. The number of the population classed

as Vellaular, or agricultural castes, is 7,767,387, of whom 3,841,851 are males and 3,925,536 females, the latter being in the proportion of 102·1 to 100 males. These castes form 27·25 per cent. of the entire Hindoo population. They abound most numerously in Cuddapah, Coimbatore, Nellore, Kistna, and Vizagapatam, where they number 43·51, 42·98, 36·72, 36·78, and 36·27 per cent. of the people, and they are fewest in proportion to the Hindoo population in South Arcot (14·2 per cent.), in Bellary (15 per cent.), in Trichinopoly (17·2 per cent.), in South Canara (19·1 per cent.), and in Tanjore (19·2 per cent.). It is not that the cultivating classes have no field for the exercise of their calling in those districts, but they have been supplanted by Brahmin and other immigrants in the possession of the soil, and the Vannian or Pully castes are the actual cultivators in the south.

Sub-divisions. — The sub-divisions are exceedingly numerous. In the census schedules no fewer than 590 names are entered of agricultural castes, though in many cases these are merely repetitions of names, with slight variations or descriptions referring to the localities in which they reside. The different sub-divisions keep much apart. As a rule the Teloogoo, or northern, agriculturists regard themselves as superior to the Tamul cultivating castes.

Occupation.—Of the male Vellaular 65·6 are engaged in some occupation. Of these 49 per cent. are "cultivators," and 8·3 per cent. are "labourers;" 1 per cent. are owners of property, about 2 per cent. are engaged in trade, and 1·6 per cent. are engaged in personal service. Less than 1 per cent. are employed in the civil and military services of the State, but in the town of Madras, where the advantages of education have been open to this class, more than 7 per cent. are in Government service. In the Presidency town, in fact, the cultivating castes have, to a great extent, abandoned their caste occupation. Only 2 per cent. of their number are thus employed, while in the strictly agricultural districts 49 per cent. of the males are cultivators.

Manners and Customs.—The worship of village deities, the polyandrous habits of some of the sub-castes, the peculiar relations of the sexes in families, and a very large number of social facts, all indicate the essentially Dravidian character of the agriculturalist classes. They are in fact absolutely untouched by foreign influences. The Brahmins act as domestic priests for the cultivating castes, but they have also Pandarams or inferior priests of their own. Although Brahmins and men of the cultivating castes do not eat together or intermarry, they meet in social assemblies, their children attend the same schools, and sit on the same benches, and both classes are rivals in Government employ, in mercantile pursuits, the professions, &c. The agricultural castes have not been so quick as the Brahmins in appreciating the advantages of culture, and consequently fewer of their numbers have advanced to the higher standard of education; neither have they the intellectual power, which for thousands of years past has been the inheritance of the Brahmins. But notwithstanding these disadvantages, they are at the present day proving themselves to be capable of the highest training. Some of the best Tamul pundits have been of the Vellaula caste, and among the few graduates of the Madras University who have proceeded to the M.A. degree, the Vellaulars have held a good place.

Vellaular.—The Vellaular may be taken as a type of the agriculturists in the Tamul country. They speak the purest Tamul. They are a frugal and industrious people, and in the cultivation of rice, betel, tobacco, &c., have probably no equals in the world. The Vellaular will not engage in any work which they consider of a degrading nature. Some are well educated, and employed in Government service, and as clerks, merchants, shopkeepers, &c., but the great bulk of them are the peasant proprietors of the soil, and confine their attention to cultivation. In nominal religion the Vellaulars are Shiveites, but their real worship is that of the village gods. They keep the Pongal and Deepauvaly feasts especially. They mostly burn their dead, but some bury. The re-marriage of widows is not allowed, and as regards eating and drinking, they follow very much the practices of the Brahmins. From their rigid adherence to caste customs, they are in social position almost equal to the Brahmin cultivators. There is indeed not that hard line of separation between Brahmin and Shoodra in Southern India which obtains in other parts. In some districts the Vellaular adopt the title of Pillay, 'sons of the deity,' which is used also by the shepherd and accountant castes. A custom prevails amongst the Caracat Vellaulars in the hill districts of Madura, which may be noticed. These people were probably an off-shoot of the low-country Vellaulars before the latter adopted the customs of the Aryan colonists. When an estate is likely to descend to a female on default of male issue, she is forbidden to marry an adult, but goes through the ceremony of marriage with some young male child, or, in some cases, with a portion of her father's dwelling-house, on the understanding that she shall be at liberty to become the consort of any man of her caste whom she may prefer, and her issue so begotten inherits the property which is thus retained in the woman's family. Numerous disputes originate in this custom.

Cavaray and Balije.—The Cavaray are a body of Teloogoo people, divided into about eighteen castes and sub-castes, who have in part migrated to the Tamul country. They were primarily an agricultural people, holding on military tenures, residing upon and working their own lands, by the aid of inferior castes. By common consent they have received a high place in the social system of India. The Balije section of this caste are to a great extent engaged as petty traders, hawkers, &c. Some of them own ships, and are sailors, but the Cavaray people appear in some respects to resemble the Vellaulars, and, as most of their sub-divisions are agricultural, they have been classed with the cultivating castes.

Tottiyar.—The Tottiyar have largely settled in the Madura district, whither they came some four or five centuries ago during the Vijianugger dynasty. They are an industrious and energetic race, and very proficient in the art of reclaiming waste lands. They, as well as most of the Teloogoo agriculturists, are nominally of the Veishnavite faith. In private however each family has its household deity. They have gooroos of their own caste, instead of Brahmins. After marriage it is customary for the Tottiya women to cohabit with their husbands' brother and near relatives, and with their uncles; and, so far from any disgrace attaching to them in consequence, the priests compel them to keep up the custom if by any chance they are unwilling. Outside the family circle they are chaste.

Miscellaneous.—The Velama castes in the Teloogoo country are practically the same as the Vellaulars in the Tamul districts. They held formerly on military tenure, and made good soldiers. The cultivators of the Ceded and Central districts are called Caupoos. In Bombay they are known as Coombies; in the northern districts as Caupoos or Naidoos, Cummavaur and Cummas. In Canara they are called Buntars. In Malabar the Nayars are the corresponding class of land-occupiers, and these formerly had a military tenure of their lands.

(e) SHEPHERD CASTES.

Introduction.—These castes are often classed generically as Yidayar. The Tamul word "Idayar" may come from Idai = middle, that is to say, neither high nor low caste. The Teloogoo term "Golla" is a corruption of the Sanscrit "Gopala" = cowherd. In Mahratta the caste is called Dhangar; in Canarese "Gollar." In the north-west of India the corresponding classes are the Aheers. The shepherd caste was probably an important division of the people in ancient times, before the country was cleared for cultivation. They have, in past ages, given rulers to the people. In early times the pastoral races, all over India, were probably supreme, but now for thousands of years they have been of secondary importance, in comparison with the cultivators.

Distribution.—The numbers of the shepherd castes in the Madras Presidency are 1,580,000, or males 784,438 and females 795,562, the proportion of females to males being 101·4 to 100. The Yidayar form 5·54 per cent. of the Hindoo population. They abound mostly in inland districts, where the country is hilly and mountainous, or from the nature of the climate is unadapted for cultivation. In Bellary, Kurnool, Cuddapah, Anantapore, Kistna, North Arcot, Madura, and Nellore the shepherd castes are numerous, but they have hardly any representatives on the Western Coast, where the climate is inimical to sheep and goats, and where the breed of cattle is inferior. In Bellary, Anantapore and Kurnool the Yidayar number 14·79, 13·98 and 11·68 per cent. respectively of the Hindoo population, but in Canara and Malabar only ·27 and ·3 per cent. respectively. In the fertile deltas of the Godavery and Cauvery, the shepherd castes are comparatively few in number. These people can only exist by their caste occupation in districts where there is much waste land, or where they have grazing rights over forests, &c.

Sub-divisions.—There are many sub-divisions of these castes, and in the census schedules there are eighty-six designations given to them. The tendency with these pastoral tribes, as with the agricultural castes, is to split up into almost endless sub-divisions. The shepherd castes

have Gotras, named after animals or trees, or the occupations they follow. There are eight principal branches of the caste :—(1) Ooridiyar, (2) Mauttidaiyar, (3) Auttidaiyar, (4) Tumbidaiyar, (5) Carittauttidaiyar, (6) Tolaiyidaiyar, (7) Cauttidaiyar, (8) Vadoogayidaiyar, and eighteen subdivisions of each sub-caste, none associating familiarly with the others.

Religion and Customs.—As regards religion more of the Yidayar are Veishnavites than Shiveites. The caste claims to have given birth to Krishna the incarnation of Vishnoo. The gross numbers are of Shiveites 643,582, and Veishnavites 897,793. In Ganjam the Vishnoo worshippers are 96 per cent. of the whole, and in most of the northern districts the Vishnoo worshippers predominate, while in the extreme south they are in a minority. In the Madura district for instance 76 per cent. of the Yidayar are Shiveites, or demon-worshippers, while in the neighbouring districts of Tanjore and Trichinopoly the Veishnavites are 90·6 per cent. and 67·6 per cent. respectively of the Idayar castes. The real worship of these classes is obviously that of village deities, but a few nominally profess Sheivism and Vishnavism. They celebrate the Pongal feast, with Vishnoo and Shiva feasts according to the latter profession. As regards the disposal of the dead, both burial and cremation are practised. Widow re-marriage is not sanctioned generally. In some districts the widows of this caste are married by the husband's brothers, and the sexual relations within the caste, or sub-caste, are somewhat loose.

Occupations.—The Yidayar are no longer a wandering pastoral people. Of the males, 38 per cent. of the whole are returned by the census as "ryots or cultivators," and 12 per cent. as "labourers." In only two places (Tanjore district 8·9 per cent., Madras 2·1 per cent.) do they figure largely in the class of holders of "property," the average for the whole Presidency in this respect being 0·6 per cent. Their numbers are few in the military and civil services, but about 2 per cent. are engaged in commercial pursuits. About 10 per cent. are employed in occupations connected with food, that is to say, as milk, butter, and curd makers and vendors, and 1 per cent. in occupations connected with dress. In the Bellary district, and in Salem, 4·0 and 3·7 per cent. respectively of the shepherd castes have adopted weaving as a trade. In the Presidency town large numbers of these people have taken to occupations other than their original caste pursuits. The educated Yidayar are held in esteem by the community generally. They are generally addressed as "Pillay," and many are employed under Government, and in capacities of trust and responsibility. The milk-men and cowherds also hold a social position of some importance, and receive marks of respect from the inferior castes and Pariahs.

(*f*) ARTISAN CASTES.

Introduction.—The artisan castes in Southern India are known by the Tamul name Cummaulan or the Teloogoo names Kamsala and Panchaula (Pancha, five, i.e., the five descriptions of artisans—goldsmith, blacksmith, copper and brass smith, carpenter, and stone-cutter). In other parts of India, goldsmiths are regarded as a distinct caste; and so with blacksmiths and carpenters. But in the south of India the members of the several artisan trades are regarded as of one caste only, all of whom can eat together and intermarry. All members of the Cummaular, or artisan castes, wear the sacred thread, and many of them call themselves "Vishwa Brahmins." Acharry, or religious teacher, is a term common both to Brahmins and artisans. The artisan castes in Southern India have always maintained a struggle for a higher place in the social scale than that allotted to them by Brahminical authority, and hence probably these assumptions. In the right-hand and left-hand caste disputes, the artisans are the chief supporters of the latter faction; and it has been held that these disputes originally had their origin in the differences between the Brahmins and the artisans. This however is not probable, for the Brahmins of the present day view the disputes with indifference.

Distribution.—In the Madras Presidency there are 849,878 persons of these castes, of whom 421,421 are males and 428,457 females, the latter sex being in the proportion of 101·6 to 100 males. The artisans constitute 2·98 per cent. of the Hindoo population. They are most numerous in South Canara, Malabar, Tinnevelly, and Madura, where they average from 3·39 to 5·39 per cent. of the population. In the Anantapore district they are only 1·3 per cent. of the whole Hindoo people. They are the principal workers in metals, stone, and wood. Of the total number of males, there are 63·9 per cent. entered in the occupation tables as following some trade or business. Of this number nearly one-half are employed in occupations connected with metals, and 18·8 per cent. as "carpenters," "builders," &c.; nearly 5 per cent. of the number as "labourers," and 6·3 per cent. engage in cultivation. These are their chief occupations.

Sub-divisions.—In the census schedules of the various districts, the artisan castes have been entered under sixty-nine headings, many, however, being different names signifying the same caste. As regards Gotras or clans, some say that they are called after their five occupations, others that they are named after Rishies. The latter is evidently a late Hindoo theory.

Religion and Customs.—In religion the artisans are almost entirely Shiveites, 694,971 of them being thus classified in the census, and only 94,885 as Veishnavites. As so called Shiveites the artisan castes worship special local deities, such as Caumautchiyamman, Kalee, &c., and in some cases the ordinary village deities. All the artisans of the Shiveite sects bury their dead; the Veishnavites usually burn. They do not tolerate widow remarriage, nor do they openly allow concubinage. The artisans who are smiths or carpenters usually bring up their children to the same pursuits. The gold and silver smiths of Southern India are a numerous body requiring special mention. The wearers of jewelry in India look more to the intrinsic value of an article than to the excellence of design or workmanship; but where the latter is called for, this class are capable of showing great skill.

(*g*) ACCOUNTANT CASTES.

Introduction.—The caste name for these is in Tamul Kanakan, in Teloogoo Curnum. They correspond to the Cauyasts in Bengal and North-Western India.

Distribution.—The writer caste in this Presidency numbers only 102,472 persons, of whom 50,869 are males and 51,603 females, the latter being in the proportion of 101·4 to 100 males. They are very irregularly distributed, and in some districts the representatives of this caste are scarcely known at all. They constitute only ·36 per cent. of the Hindoo population, and are most numerous in the Ganjam district, where they number 1·53 per cent. of the people. In this district there are 25,665 of the writer caste, while in South Canara there are only 15. In Nellore, Cuddapah, Bellary, Kistna, Anantapore, Tanjore, Trichinopoly, and Madura, the members of this caste are very few, but in Chingleput, North Arcot, Vizagapatam and South Arcot districts they constitute 1·61, 1·16, ·64 and ·61 per cent. of the population respectively. In many of the districts of Southern India the duties of village accountant, which is the hereditary occupation of the writer caste, have been usurped by Brahmins or Vellaulars. These in Canara are called Shanbogues and in Malayalam Adigary. In Cuddapah, Bellary, Kurnool, and Nellore most of the village accountants are Brahmins. There is no caste in fact which is distributed in so peculiar a manner as the writers. In Ganjam they exist largely, but in Vizagapatam they are less numerous, and in the Kistna district they almost entirely disappear. Further south, in North and South Arcot and Chingleput, they re-appear in considerable numbers, while in all other districts they are very few.

Sub-divisions.—In Bengal the caste is divided into 12 sub-divisions. In Madras they have but four divisions—(1) Seer Kanakar, (2) Sharat Kanakar, (3) Menaut Kanakar, (4) Muttoovaly Kanakar. It is said that the Kanakar came originally from the north.

Occupation.—In this part of India the writers are too scattered to take the influential position they do in the north; but in the districts in which they are located they are ordinarily the village accountants, or shroffs. In the early days of English intercourse with the country they were the interpreters, agents, and brokers of the Company. The term Conicopoly applied to agents, purveyors, &c., is a corruption of Kanakkan pillay, a writer or accountant. Out of the males, about 20 per cent. are engaged in professional work as accountants or in other professions, 22 per cent. are cultivators, and 4 per cent. labourers, nearly 6 per cent. are in personal service, about 1½ per cent. in mercantile pursuits, and nearly 4 per cent. owners of property. The Kanakar are usually addressed as "Pillay," a title of respect common to them and the agricultural and shepherd castes.

Religion and Customs.—In religion the writer castes are worshippers of village deities, as well as of Vishnoo and Shiva. Some bury and some burn their dead. They do not re-marry their widows, nor is it allowable to use them as concubines.

(h) WEAVING CASTES.

Distribution.—These are generically called Keikalar. There are 979,062 persons belonging to the weavers' castes in this Presidency. Of this number the census returns show 487,464 males and 491,598 females, or 100·8 females to 100 males. In the early period of Indian history, when the people not only wove their own cotton fabrics, but exported their manufactures to foreign markets, the weavers formed an important section of the community. They now constitute 3·44 per cent. of the Hindoo population, and are distributed all over the country, though they are still most numerous in districts that are productive of the raw material upon which they exercise their skill. In Anantapore, Godavery, Cuddapah, Bellary, Coimbatore, Salem and Madura, the great cotton-producing districts of the Presidency, the weaver castes are numerous in proportion to the population. They are comparatively rare in Ganjam, Nellore, Kurnool, South Arcot, and Tinnevelly, and in South Canara and Malabar.

Sub-divisions.—The weavers in Tamul districts are known as — Keikalar, Sheniyar, Jendravar, Shauliyar, Jedar, Shiloopar. In Teloogoo as—Shaulevaundloo, Jendravaundloo, Pudmashauleloo, Togatavaundloo, Devangooloo, and as Joolye in Mahratty. There are numerous subdivisions, and the weaver colonists from northern countries, if settled in the south, hold no intercourse with the southern weavers. In every large town there are colonies of silk-weavers (Putnoolcaurar) who originally migrated from Goozerat, and who live apart from the ordinary weavers, and speak a Goozeraty dialect amongst themselves. These are a fair complexioned and handsome race. The chief men of these communities are wealthy, dealing on a large scale in raw silk, and disposing of the manufactured article.

Habits.—The habits and customs of the weaving castes are almost entirely non-Aryan. The great bulk of them are worshippers of village deities or demons, and professed Shiveites. The number of Shiveites is 595,170 and of Veishnavites 337,297. Some of the weaving castes sanction widow re-marriage and concubinage of widows, while others do not. In the Teloogoo districts the Jendravaundloo castes follow Hindoo custom in this respect, while Togatavaundloo allow greater latitude in eating drinking, marriage, &c. The Shiveites bury, and the Veishnavites burn, their dead. The sect of the Jangams or Lingayets have made many converts amongst this caste. The number of weavers belonging to this religious sect is 8,224.

Occupation.—The occupation of the weaving castes is mainly confined to their original employment. 65·5 per cent. of the whole are entered in census returns as pursuing some calling. Of these, 47·4 per cent. of the male population are employed in "textile fabrics and dress." About 6 per cent. of the weaving castes have forsaken their looms for agriculture, and nearly 3 per cent. for trade and commerce; about 6 per cent. are labourers; a few persons are employed in other capacities also. The weaving business has, for many years past, been in a decaying state. While the weaving trade is a poor industry, it affords employment to a large number of persons, probably half a million in all, as the women and children of weavers' families all work at the looms. That it is not a profitable industry may be inferred from the fact that only 0·3 per cent. of the males of weaver castes are returned as subsisting by "property."

(i) AGRICULTURAL LABOURING CASTES.

Introduction.—This caste is generally named after its best-known class, the Vanniar or Pullies. Amongst them have been included the Maravar and Kullar of the southern districts, formerly turbulent tribes, addicted to thieving, fighting, and lawless occupations, but now being gradually accustomed to the arts of civilization.

Distribution.—In the whole Presidency the agricultural labouring classes number 3,751,093 persons, or 13·16 per cent. of the entire population. Of these numbers 1,829,523 are males and 1,921,570 females, the latter being in the proportion of 105 to 100 males. These castes are not numerous in the Teloogoo country. They prevail in Chingleput, North and South Arcot, Tanjore, Trichinopoly, Madura, Tinnevelly, Salem, and Madras. In the Teloogoo districts they form less than 3 per cent. of the population. In the Tamul country, they form more than 30 per cent. of the Hindoo population.

Religion.—In religion, they are practically demon-worshippers, whatever their actual profession. 2,852,493 are returned in census returns as Shiveites, and 849,122 as Veishnavites.

Occupation.—Some are employed as village servants, policemen, &c., while others engage in minor professions, trades, and personal service. But the great bulk of the people are returned as cultivators or labourers. Of the males, 63·9 per cent. of the whole are entered in the occupation lists of the census. Of these 45·2 per cent. are cultivators, that is, in the position of ryots owning lands, or sub-renting from others, and 11·9 per cent. are labourers for hire. About 1 per cent. of the people own "property" and subsist thereon. A large proportion of the Vanniar were slaves before the British administration, incapable of owning property, or of cultivating on their own account. Others were thieves and robbers by profession, and existed on plunder.

Vanniar or Pullies.—The Vanniar or Pullies are the bulk of agricultural labouring class of the southern districts. Before the British occupation of the country, they were slaves to the Vellaular and Brahmin cultivators, but a large number of them are now cultivators on their own account, or work the lands belonging to the higher castes, on a system of sharing half the net produce with the proprietor; others are simply labourers. They are, as a rule, good field labourers. They abound in the Tamul districts of Trichinopoly and Tanjore. The Vanniar, like many of the Shoodra castes in the south, have adopted a hostile attitude in connection with their claims under the caste system. In 1833 they attempted, in Pondicherry, to get a legal decision that they were not of a low caste; but the French administration refused to deal with the question, on the ground that the Hindoo law did not refer to the Vanniar at all. When the Dravidian tribes ruled in South India many Vanniar raised themselves to the position of poligars, or independent chiefs. The term Naick is usually affixed to the names of the Vanniar. There are about thirty sub-divisions of the Pullies, named chiefly after their different occupations, but they may all eat together and some intermarry.

Ooppaurar.—The Ooppaurar (salt-makers) are another division of this class. Along the sea coast salt is made by the evaporation of sea water, but in the interior some saline earths are used for the manufacture, and the same class of people in certain districts make saltpetre also.

Woddas.—The Woddas are a labouring tribe of Teloogoo origin, but now scattered all over the country. They are the tank-diggers, well-sinkers, and road-makers of the country, and live usually in detached settlements, building their huts in conical, or bee-hive form with only a low door of entrance. They are a fine-looking race; most of them are by profession Veishnavites, wearing the trident prominently on their foreheads, arms, and breasts. They eat every description of animal food, and drink spirituous liquors. Although the Wodda caste pray to Vishnoo, they are in reality worshippers of one of the destroying spirits, named Yellamma. They dislike day-labour, but will work in gangs on contract; and on these occasions it is the custom for all the men, women, and children to assemble at the place of labour, and for every one, but the very old or very young, to take a share in the work. The women carry the earth in baskets, while the men use the pick and spade. The infants are tied up in cloths suspended as a hammock from the boughs of trees. These people are employed largely in the Public Works Department, and in the construction and maintenance of railways. They are wholly uneducated.

Maravar.—The Maravar are most numerous in Madura and Tinnevelly. The Maravar were formerly the principal warrior tribe of the south and held their lands under military tenure. They were very numerous and powerful in Madura and Tinnevelly, even after the date of the first English occupation of the country; but they are disappearing. There are seven divisions amongst them. In religion they are nominally Shiveites, but practically demon-worshippers. Their widows re-marry. Divorce is easy and common. In their diet they eat flesh and drink spirits.

Kullar.—The Kullar are numerous in Madura, Trichinopoly, and Tanjore, and the Rajah of Poodoocottah is the acknowledged head of the tribe. The Kullar are a diminutive, dark-skinned tribe. They were formerly the terror of the country they inhabited, on account of their thieving propensities. They were employed to some extent by the ancient rulers of the country as watchmen, but their profession was that of plunder. During the wars in the south, in the latter part of the eighteenth century, these people were everywhere troublesome; but, as with the Maravar, a great change has come over them, and they have now settled down in peaceable occupations. In their habits and customs they are entirely aboriginal. They are mostly devil-worshippers, though nominally Shiveites. They usually bury their dead. Divorce and re-marriage of women are allowed. Marriage of near

relatives is usual in this tribe. The Western Kullar of Madura are polyandrists.

(j) POTTERS' CASTES.

Distribution.—These are called generically Coosavar. The caste is composed, according to the last census, of 263,964 persons, of whom 132,138 are males and 131,826 females. They constitute ·93 per cent. of the Hindoo population. They are distributed all over the country, but are rather more numerous in Kurnool, Madura, Nellore, and South Canara than in other districts.

Religion.—In religion they are mostly Shiveites (69·5 per cent. being so), and ·47 per cent. of them are Lingayets; but, as with all the inferior castes, village deities or demons are the principal objects of worship.

Occupation.—Of the males, two-thirds are entered in the occupation columns of the census as employed. Of these one-half follow their caste occupation of potters, giving on the average nearly one potter for every village in the Presidency. A few, nearly 3 per cent., are engaged in trade; 13·3 per cent. are returned as cultivators, and 5·1 per cent. as labourers. The potter in the old village commune was a public servant, receiving a share of the agricultural produce in return for his labour. But this is not now generally the case. The potters make bricks and tiles, as well as earthenware pots for household use.

Divisions.—The potters do not appear to be split up into sub-sections, although the Tamul and Teloogoo potters do not intermarry or hold any intercourse.

Customs.—They bury their dead; widows in some localities re-marry.

(k) MIXED CASTES.

Introduction.—Two large religious sects, the followers of reformers, who practically renounced caste distinctions, are frequently included as a caste under the term Shatauny. They have been termed by the census department the "mixed castes." These two are the Shataunies or Sanautanas proper, who are the disciples of Cheitanya, a reformer of the fifteenth century, and who are exclusively Veishnavites; and the corresponding reformed sect of the Shiveites, who follow the teachings of Basava, and are known as "Jangams" or "Veerasheivas." The chief characteristic of both divisions is that they are composed of persons of all classes.

Distribution.—The number of persons grouped in these mixed castes in the census returns is 625,455, of whom 299,527 are males and 325,928 females. The mixed castes number 2·20 per cent. of the Hindoo population. They are most numerous in the Trichinopoly district, where they form 12·42 per cent. of the Hindoos, and they are also common in Coimbatore and Bellary, where they constitute 4·12 and 7·8 per cent. respectively of the population. In Malabar only ·46 per cent. of the people are of the mixed castes. The Shatauny proper (Veishnavites, or rather worshippers of Krishna, one of the incarnations of Vishnoo) number 145,117, or 23·2 per cent. of the mixed castes. The Lingayets or Jangams (Shiva reformers) are 24,041, or 3·8 per cent. The remainder of these castes, or about 65 per cent. of the whole, are mostly connected with Shiva worship as Pandarams, or inferior priests.

Sub-divisions.—The mixed castes have been entered in the schedules of the census under about 200 designations, of which the following are a few:—Aundies, Byraghies, Dausaradivaundloo, Dausarivaundloo, Gosyes, Jangams, Jogies, Lingadhauries, Ochar, Pandarams, Rama Jogies, Shatauthavar, Shatauthar, Tumbirauns, Veerasheivas, and Bhogams.

Occupation.—The bulk of the mixed castes are a nondescript people devoted to religion or temple service. About 29·4 per cent. of the males of these castes are returned by the census as "cultivators," and about 11 per cent. as labourers; 7·3 per cent. are entered in the "unproductive" classes, and these subsist chiefly by begging. A few are in Government service, in minor professions, as priests, &c., and some in trade. The Shataunies in Madras probably derived their names from Sanautana, one of the first of the disciples of Cheitanya, the reformer, whose views they profess to adopt. Cheitanya was an out-caste, but became distinguished as an author and expounder of the doctrines of his master. Shataunies are frequently religious mendicants, priests of inferior temples, minstrels, sellers of flowers used as offerings, &c., and have probably largely recruited their numbers by the admission into their ranks of persons who have been excommunicated from higher castes.

(l) FISHING AND HUNTING CASTES.

Distribution.—The long line of sea-board of the Madras Presidency gives employment to a large fishing population. Some of the people who engage in sea-fishing are of the fishing castes, while many others are Mahomedans and out-caste tribes. Of the fishing and hunting castes proper, the population is 873,448, of whom 429,589 are males and 443,859 females. These castes constitute 3·07 per cent. of the Hindoo population. They are most numerous in the inland districts of Bellary, Anantapore and Kurnool, where they number 18·86, 14·72, and 10·82 per cent. of the population respectively. In some of the northern sea-board districts they are less than 1 per cent. of the Hindoo community. The people of the fisher castes are either fishers or hunters, according to the locality they live in. The Tamul term for the caste is "Shembadavar." In Canarese they are called Mookwas. In Teloogoo Bestavaundloo.

Occupation.—The fishing castes are principally Boyivaundloo, Bestavaundloo, Chaupacoolavaundloo, Patnavar, Mogivaloo, Paravar, and Valaiyar. The Teloogoo fishing castes are much employed in carrying palankeens. The Boyivaundloo, a Teloogoo tribe, are the best bearers in the country, and are still largely employed in domestic service. As fishermen these castes confine their operations mostly to the sea-shore, to the backwaters, or lagoons running parallel with the shore, or the mouths of rivers. As hunters, they frequent the forests and jungles of the interior, and some still live by the products of the chase, although many have settled down to other occupations since the forests have been decreasing. 62·8 per cent. of the males are returned in census returns as following some occupation. In the coast and jungle districts most of them get their living by hunting and fishing, as in Chingleput 56·6 per cent., South Arcot 40 per cent., Canara and Malabar 26 per cent. On the whole, however, only 6·6 of the population are returned as employed in connexion with food supplies; 31·2 per cent. are engaged as cultivators. In the Trichinopoly district 51·8 per cent. are so employed. About 3 per cent. of these castes are in trade, 2·5 per cent. in personal service, and 15 per cent. are simply "labourers" for hire. In Kurnool, North Arcot, and Tanjore there is a large percentage of men of this class who are possessors of "property."

Religion and Customs.—The northern fishing castes, as the Boyivaundloo, are mostly Veishnavites, but in the south they are nominal Shiveites and practical demon-worshippers. They marry a plurality of wives, are allowed to eat flesh and fish, and mostly bury their dead. They have their headmen (Peddaboyis) and priests, their "Chetties" and merchants. The Teloogoo fishing castes do not intermarry with those of the south. A very large number of the Paravar, a fishing caste on the Tinnevelly and Madura coasts, were converted to Christianity by the Portuguese.

(m) PALM CULTIVATOR CASTES.

Introduction.—The common date palm grows wild in many parts of the country; and in the districts where it grows there are people of the Shaunar class who tap the trees and extract the juice, which they use either to boil down into coarse sugar, or to distil into intoxicating drinks. The palmyra tree also grows without special care in some parts; but in Tinnevelly and other dry districts it is cultivated largely on account of its saccharine juice, its oil-producing nuts, and the value of its timber and leaves, which the people largely use in the construction of their houses. The cocoanut palm, however, is always cultivated. It thrives best along the sea-belt of the Western Coast, and in these districts the growth of cocoanut palm affords occupation to an immense population. On the Eastern Coast and in many inland districts the cultivation is largely extending, the value of the produce, oil, coir, &c., having increased about threefold within the last twenty years. The areca palm is also grown to some extent on the Western Coast. This cultivation gives a generic term to the tribes now under consideration.

Distribution.—The numbers of the Shaunar castes are 1,619,825. Of these 798,127 are males and 821,698 females, the proportion of the latter to the former being 102·9 to 100. They constitute 5·69 per cent. of the Hindoo population; but their distribution is very unequal. In Malabar, Canara, and Tinnevelly they constitute 34·28, 19·58, and 15·83 per cent. respectively of the Hindoo population, while in South Arcot, Cuddapah, and Trichinopoly they number only ·8, ·7, and ·5 per cent. respectively. The Shaunar of Tinnevelly and the south of the peninsula are also called Ilavar, the derivation of which term may mean

either "toddy palm juice," or the "Island of Ceylon." In the Tinnevelly district they are divided into five families, but these intermarry. The palm cultivators in Malabar and Travancore are called Teeyar; in Canara Billawar; and in the Northern or Teloogoo districts Eedigavaundloo. The tradition amongst the southern Shaunar is that they came originally from Ceylon.

Religion and Customs.—The relations of the sexes and their religious development are the same as those of all the aboriginal tribes. In Tinnevelly and Canara they are chiefly devil-worshippers. In Malabar they have hardly any religion at all, beyond the worship of some local deities. They are chiefly classed as Shiveites 73·9 per cent., but 21·4 per cent. are nominally Veishnavites. They have their own gooroos or priests in the Shiveite sects, but Brahmins officiate for the Veishnavites. The Teeyar sometimes have one wife between several brothers, and plurality of wives and divorce also are common. The sexual relations are indefinite within the caste, and similar customs are more or less common amongst all the Shaunar tribes. In the Tinnevelly district many Shaunar have become Christians. The Shaunar are everywhere a hardworking, industrious people, eating freely of flesh and fish, and drinking the toddy and spirit they extract from the palm trees. The Teeyar especially are a fine, and physically handsome, race.

Occupation.—The Shaunar are returned by the census as traders, cultivators, toddy-drawers, distillers, &c. About 5 per cent. of the males are engaged in trade; 20·8 per cent. as cultivators; 13·7 per cent. in occupations connected with food, drink, and stimulants; and 17·2 per cent. as labourers. In Malabar and Tinnevelly about one in a thousand of the males is engaged in Government service. In Tinnevelly some of the Christian converts of this caste have graduated in the Madras University; and where they have availed themselves of educational advantages, the social position of the caste is improving.

(n) BARBER CASTES.

Introduction.—The barber not only pursues his special calling but is also employed in the arrangement of marriages, feasts, funerals, &c. He also, like the potter, practises a primitive surgery. Occasionally he is employed as a tom-tom player. In ancient times he was a village servant receiving from the communal stock a yearly allowance of grain in recompense for his labours. There is no real sub-division of castes amongst the barbers. There are numerous families of barbers, and those of one locality do not hold any intercourse with those of another. The barbers attached to the British army are migratory. They are called Ambattar in Tamul, Mangalavaundloo in Teloogoo, and Hajaum in Hindostany, Canarese, and Mahratty.

Distribution.—There are 348,390 persons of this caste in the Madras Presidency, of whom 173,211 are males and 175,179 are females. They are distributed equally throughout every district, and constitute 1·22 per cent. of the Hindoo community.

Religion and Customs.—Barbers are everywhere worshippers of village gods. Their habits are plastic, due to the subservience of their calling.

Occupation.—Of the male barbers 42·6 per cent. are engaged in their trade, 9·5 per cent. are cultivators, and 6·5 per cent. "labourers." In the northern districts some are returned as owners of property.

(o) WASHERMAN CASTES.

Introduction.—Every communal village had formerly its public servant of this description, who, like the barber, was paid by a share of the village produce. These people are called Vannaur in Tamul, Chaucalavaundloo in Teloogoo, Agasar in Canarese, Asauyar in Malayalam.

Distribution.—They are more numerous than the barbers. There were 528,535 of them at the time of the census, or 262,612 males and 265,923 females, the proportion of the latter to the former being 101·2 to 100. They are stronger in the Teloogoo country, compared with other portions of population, than in the southern districts. There they average from 2 to 3 per cent. of the Hindoos, while in the south the average is from 1 to 1·5 per cent. For the whole Presidency the average is 1·84 per cent. of the Hindoo population.

Occupation.—The washing castes, like the barbers, are rarely brought together in considerable communities. From the nature of their duties, the washers do not hold a high place in social esteem. About 47·5 per cent. of the males are engaged in their trade occupation, but a few of them till the ground (7·2 per cent.); others are common labourers (6·9 per cent.). The Shiveites and Veishnavites are as 64·6 and 29·7 per cent. respectively. In social customs the washermen conform to the practices of other subordinate castes.

(p) PARIAH TRIBES.

Introduction.—These are spoken of by themselves as the "Fifth Caste," and described by Buchanan and other writers as the Puncham Bandham. There is no part of the country in which these tribes are not to be found under various designations. The word Pariah is said to be derived from parei, a drum, an instrument upon which these people perform at festivals, but the derivation is apparently a fanciful one. In the Tamul country they are called Pariahs; in Teloogoo Maler; in Canarese Holeyar; in Malayalam Pooliyar; and Dheda in Mahratty. They are everywhere the menial servants of the country, and wherever they reside they have allotted to them a separate place on the outskirts of the village, called Parcherry, or Pariah village. In times prior to British rule the whole of the Pariah community, without exception, were the slaves of the superior castes. The Hindoo law recognized five descriptions of service, four of which might be performed by any one without loss of dignity or caste, but the fifth order of service was to be performed only by slaves, styled Dass, from their Dasya, or aboriginal descent. The service to be exacted of the latter class included the sweeping and cleaning of the house, the doorway, and other impure places. There were fifteen species of slaves recognized :—(1) Those born of female slaves, (2) purchased for a price, (3) those found by chance, (4) slaves by descent, (5) those fed and kept alive in famine times, (6) those given up as a pledge for money borrowed, (7) those binding themselves for money borrowed, (8) those captured in battle, (9) those unable to pay gambling debts, (10) those becoming slaves by their own wish, (11) apostates from a religious life, (12) slaves for a limited period, (13) slaves for subsistence, (14) those who for love of slave-women become slaves, (15) by voluntary sale of liberty. Of these fifteen descriptions of slaves, the first four could never obtain their liberty without the consent of their owners. The other kinds of slaves might obtain their freedom under stipulated conditions. Slave-women, however, bearing sons to their masters, became free. People of any caste might sell themselves into slavery, or be made slaves by conquest, &c., but the Brahmin alone could never be a slave. The British administration has freed this class, as a community, from the yoke of hereditary slavery and from the legal disabilities under which they suffered; but they still remain at a low depth of social degradation. The Christian missionaries, to their great honour, have persevered in breaking through the time-honoured custom of treating the Pariah with contumely, and have admitted him to equal rights and privileges in their schools and churches.

Distribution.—The Pariah population of this Presidency is 4,437,788. There are 2,194,607 males and 2,243,181 females, the latter being in the proportion of only 102·2 to 100 males. The Pariah castes number 15·58 per cent. of the Hindoo population. They are more than four times as numerous as the Brahmins, and nearly three times as numerous as the whole of the twice-born castes put together. In the Tinnevelly and Madura districts they only form 8·42 and 8·82 per cent., respectively, of the Hindoo population, but in Chingleput and South Arcot they number 25·9 and 24·8. In other districts, excepting Vizagapatam, where they were only 9·8 per cent., the proportions vary between these extremes.

Occupation.—As regards their occupations the Pariahs do not now materially differ from any other class of the community. A few are in Government service as village watchmen; some in the police and military services. About 4·4 per cent. in personal service; but, except in the districts where Europeans are numerous, personal service is not generally popular with them. About 1 per cent. are traders; 21·2 per cent. are cultivators; 7·4 per cent. are employed in connexion with dress (generally as shoe and slipper makers); and about 26·4 per cent. labourers, agricultural or otherwise. On the whole, 65·3 per cent. of the males are returned as engaged in some occupation. The women of this class work as hard as the men, both in agricultural and all other descriptions of labour.

Sub-divisions.—There are numerous sub-divisions of the Pariahs, but the more common are the Pariah, the Pullar, the Chuckler, and Toty. The two first are chiefly engaged in domestic service and common labour; while the Chucklers are the workers in leather and skins, and the Toties are the scavengers. The establishment of every

village community formerly had a servant of this description. It is a mistake to suppose that among themselves the Pariahs have no sort of caste system of their own. They are as tenacious of their privileges in this particular as any of the higher castes. They have their own gooroos or priests, and intermarry only amongst their own sub-divisions.

Customs.—The morality of the Pariahs is indifferent. The women are marriageable at any age, widows remarry, and the concubinage of widows is common. In eating and drinking, the Pariahs have no scruples as to what is clean or unclean. Some of their sub-divisions eat pork and beef, while others do not. Almost all are addicted immoderately to arrack and toddy, but they are not worse in this respect than the weavers and agricultural labouring castes. The Pariahs were not always in their present condition of degradation. The most popular poem ever produced in the Tamul country, the Cooral, was written by a Pariah named Tiroovulloovar, "the divine Pariah" as he has been termed. This remarkable work is read and admired by Hindoos of every class and creed. The author addresses himself to mankind in general, without reference to caste or creed. He enunciates a monotheism, embracing all humanity. He rises above the distinctions of caste, and preaches a pure morality to the human race as a whole. This man, though a Pariah, was deemed to be worthy of election to the Academy of Madura, an honour usually reserved exclusively for Brahmins of learning and piety. Another Pariah poet, Kapila, author of the Agaval, is supposed to have been a brother of the author of the Cooral, and his works still hold a high place in popular esteem.

Religion.—In religion they are nominally Shiveites or Veishnavites, but practically worshippers of village idols and demons.

(*q*) HILL AND WANDERING TRIBES.

List.—The following is a list of the more important of these tribes. They are "aboriginal" in the sense that their origin in South India was probably antecedent to that of the ordinary population:—

Badagahs	24,398
Iroolar	37,055
Todahs	689
Coorumbar	7,875
Kotahs	1,067
Yerkalar	48,882
Yanaudies	66,099
Chentsoos	5,010
Kadar	624
Malasar	Numbers not traced.
Pooliyar	Do.
Koravar	55,645
Coragar	4,458
Vedar	51,854
Malayalies	69,396

These tribes are described in the article on Ethnology, and further particulars will be found in Volume III.

(*r*) MAHOMEDANS.

Introduction.—The Mahomedan communities are classified as follows:—1, Lubbays; 2, Moplahs; 3, Arab; 4, Sheikh; 5, Syed; 6, Pathaun; 7, Moghul; 8, other Mahomedans.

Lubbays.—The origin of the term "Lubbay" is difficult to ascertain. The Gentoo Code speaks of a class of slaves "found by chance" as "Labbihees," but whether this is the origin of the term does not appear. The word is used to signify the descendants of foreign traders (Arabs and Persians) with women of the country. The Lubbays in the present day have few characteristics of a mixed race. Whatever the origin of the tribe may have been, there is nothing now to distinguish them from the aboriginal people, beyond their peculiar method of shaving the head, trimming the beard, and mode of dress. They appear to be exactly the same class of people as the race of the western coast called Moplahs. They are numerous in Madura, Tinnevelly, Trichinopoly, and Tanjore, and especially along the sea coast, where they are fishermen, boatmen, sailors, and traders. They have extended themselves inland also in the districts of North Arcot, Coimbatore, and Salem, where they are generally traders and farmers. There were 30,162 of this class entered in the census schedules, or 1·5 per cent. of the total Mussalman population, and nearly the whole of them are to be found in districts south of Madras. In Tanjore 80 per cent. of the Mahomedan population are of this class. Of the total number of Lubbays 14,644 were males and 15,518 females, the latter being in the proportion of 105·9 to 100 males. In religion 83·8 per cent. of the Lubbays are "Soonnees" and 2·7 per cent. "Shiahs."

Moplahs.—The Mahomedan race of the western coast is confined almost exclusively to the country on the western side of the ghauts. In the districts on the eastern side they are numbered by units and tens, while in Malabar alone there are upwards of half a million. All the races indigenous to the western side of the peninsula are more than usually attached to their country, and none will leave it if they can avoid doing so. Not very many years ago these districts were cut off from the eastern side of the peninsula by impassable forests and mountains, and in the early days of the English settlements in India, the only communication with Malabar was by sea. The Arabians possessed the entire trade between India and the west for many centuries before the Portuguese established the long sea route, and they undoubtedly formed many trading colonies or settlements along the Indian coast, and were numerous and powerful in the days of the early travellers to India. The Moplahs were originally partly of Arab extraction, but, as in the case of all other hybrid races, the stronger element has prevailed, and they may now be regarded as aborigines of the western coast. Their numbers are constantly being added to by conversions from among the inferior castes of Malabar. The Moplahs are usually a hard-working and frugal people, temperate and simple in their lives. They are almost entirely uneducated, and the religious fanaticism which is one of their characteristics is, under these circumstances, a source of danger to the public peace. Under the influence of religious excitement they are reckless of their own lives and of others, and the presence of European troops in the district has always been considered essential to the preservation of peace. The Moplahs are 495,738 in number, or 248,553 males and 247,185 females. They constitute 25·6 per cent. of the Mahomedan population. The proportion of females to males is 99·4 per cent. Of the total number, by far the greater number are located in the Malabar district and about a tenth in South Canara. 95 per cent. of the whole of the Moplah population belong to the Soonnee sect of religionists. About 9 per cent. of the males are traders, 18·7 per cent. are "cultivators," and 22·4 per cent. are simply "labourers." Only 53·8 per cent. of the males are returned by the census as following some employment. The Moplahs all speak the Malayalam language, but they use a modified form of the Arabic alphabet to write in. The Moplah women are secluded, as is the case with Mahomedans generally, and polygamy is allowed, although the poverty of the people is generally a bar to a plurality of wives.

Arabs.—The number of persons of the Mussalman faith returned in the census as "Arabs" is very small—only 3,736; of these, 2,004 are males and 1,732 females. The proportion of females is very high. These people are found chiefly in the Trichinopoly and Tinnevelly districts.

Sheikhs.—The term "Sheikh" is supposed to refer to the lineal descendants of Mahomed, Aboo Bakr and Omar, but, although a great many persons in South India assume the title, it is by no means certain that they can rightly claim it. The number of persons returned as "Sheikhs" is 54,741, of whom 27,634 were males and 27,107 females. The proportion of the latter is only 98 to 100 males. The "Sheikhs" are 2·8 per cent. of the whole Mussalman population, and they appear to be most numerous in the Northern and Ceded Districts. The prevailing religious sect of this division is the "Soonnee," 92·9 per cent. A fair proportion of these people (more than 3 per cent. of the males) are in Government employ, civil or military; 5 per cent. are in personal service, and about 6 per cent. in trade and commerce; 18·5 per cent. are cultivators, and nearly 5 per cent. employed on dress; 17·8 per cent. are common labourers. On the whole, 60·6 per cent. of the male population are employed.

Syeds.—The term "Syed" indicates a lord or chief, and is especially applied to the descendants of Hossein, the son of Ally, and grandson of Mahomed. The number of persons returning themselves as Syeds is 23,289, or 1·2 per cent. of the Mussalman population. Of this number, 11,187 were males and 12,102 females, the proportion of the latter being only 108·1 to 100 males. Very few of the Western Coast Mahomedans have returned themselves of this class, or as Sheikhs. In their occupations these people are almost precisely in the proportion of the "Sheikhs," except that a larger number of them figure as owners of property and unproductive; 58 per cent. of the males are returned as following some employment.

Pathauns.—This term is applied to Mahomedans of Afghan descent, or descendants of Cootb-ood-deen and his

followers; and of these the census returns show a total number of 15,401. The males were 7,789 and females 7,612, and here again the proportions of the sexes (97·7 to 100) show that many females must have been left uncounted by the enumerators. The Pathauns form ·7 per cent. of the Mussalman population. They are most numerous in Ganjam, Coimbatore, and Salem. Like all other divisions of the Mahomedans, they have degenerated by intermarriage. A large proportion of the males are in the military and civil services of Government—more than six per cent.; but in the other occupations their proportions do not differ greatly from those of the Sheikhs or Syeds.

Moghuls.—The Moghuls are the reputed descendants of Tartar chiefs, who followed Tamerlane into India. Only 1,229 persons, or ·06 per cent., have been returned as belonging to this class, of whom 628 were males and 601 females. The proportion of females to males is 95·7 to 100. The Moghul families are most numerous in the Northern and Ceded districts, and in Salem. They follow much the same occupations as the Pathauns, i.e., military and civil services, personal services, trade, agriculture, and unspecified labour. About 3·2 per cent. of the males of this class are returned as owners of property.

(s) STATISTICS FOR THE ABOVE.

The following table gives the larger of the Hindoo castes and tribes mentioned above in their order of numerical importance; that is to say forty-eight castes, each numbering over 100,000 members:—

Caste name.	Total.
Pariah ...	3,223,938
Vellalar ...	1,625,895
Shaunar or Eedigavaundloo ...	1,478,660
Pully ...	1,295,049
Maudigar ...	1,126,748
Brahmin ...	1,122,070
Caupoo ...	1,102,274
Vanniar ...	1,075,505
Golla or Yidaya ...	1,072,351
Cummas ...	795,704
Balije ...	780,732
Bestavaundloo or Valaiyar ...	724,480
Kamsala or Cummaular ...	692,300
Telagaloo or Vadoogar ...	609,138
Vannaur ...	528,535
Reddy ...	499,462
Cullan ...	397,900
Padayauchy ...	376,847
Comaty ...	365,715
Wodda ...	363,422
Velama ...	348,061
Ambattan ...	342,835
Nayar ...	335,320
Keikalar ...	322,722
Vauniyar and Gaundlavaundloo ...	316,694
Agambadiyaur ...	302,339
Coommaravaundloo or Coosavar ...	263,975
Maravar ...	256,304
Codooloo ...	244,090
Chetty ...	235,169
Sale ...	206,697
Coorooba Golla ...	180,557
Ambalacaurar ...	155,537
Gowda ...	144,073
Conga Vellaular ...	143,010
Devangooloo ...	136,905
Moottirazooloo ...	132,266
Savaraloo ...	131,463
Lingadhauries ...	117,616
Coorumbar ...	114,381
Paukanauticaupooloo ...	107,341
Sheniyar ...	107,163
Nattamaudy ...	106,682
Yaudavooloo ...	105,426
Ooppaurar ...	104,985
Ooriyah ...	101,206
Calingooloo ...	100,564
Rajpoots ...	13,915
Total ...	24,434,021

This shows that among the castes thus grouped, the Pariah is numerically the strongest, representing nearly $3\frac{1}{4}$ millions, or more than 11 per cent. of the total Hindoo population. The Pariahs are double the strength of the next largest caste in the list. Altogether there are (including the Pariahs) nine castes each numbering over one million and aggregating 13,122,490, or 46·05 per cent. of the total Hindoo population. The forty-eight castes given in the list include about six-sevenths of the total Hindoo population.

APPENDIX No. XXXIII.

ACCOUNT OF PARTICULAR CEREMONIES OBSERVED BY THE CASTES AND TRIBES OF SOUTHERN INDIA.

(a) *Introduction.*

An account of the general ceremonial life of the natives of Southern India will be found in other parts of these volumes. The following are notices of particular ceremonies which may be taken as the most important or as typical. Those selected are the daily domestic ritual of a Brahmin or high-caste Hindoo; the ceremony of thread investiture performed on youths of the twice-born or Brahmin, Cshatriya, and Veisya castes; the ceremony for first celebration of marriage, the bride being always and the bridegroom being frequently an infant; and the funeral ceremonies performed subsequent to actual cremation or burial.

(b) *Daily Ceremonies.*

The high caste Hindoo as he wakes from sleep repeats a sacred text to guide him during the day. Many of these texts chosen from the Vedas are of a highly devotional and supplicatory character. He then bathes, in his house or if possible at a well or in a stream; when he repeats the liturgy of the ceremony with invocations to the elements, and pours libations to the spirits of his progenitors. He then puts on clean clothes newly washed, and in the room where in every family the household gods are kept apart, he reads a portion of the scripture, or repeats hymns and texts, in company with the women of his household and his children, who have also bathed. He then marks his forehead with the sacred emblem of his caste, and afterwards marks those of his wife and children. In some families rich enough to maintain a family priest these ceremonies are performed by that functionary. After their conclusion the morning meal is eaten, and the worldly business or calling is pursued. It is the custom among many Hindoo families to worship daily at the public temple of their tutelary divinity, and present flowers or other offerings as part of their morning service; this follows the bathing, which is indispensable. During the day, a devout Hindoo will frequently repeat the name of his tutelary divinity. He does not get up, sit down, enter or leave a room, yawn, sneeze or cough, without invoking his protection. If observant of his caste no Brahmin opens his book for study, no merchant or trader his day-book or ledger, no blacksmith, carpenter, weaver or other artisan or labourer uses his tools, without the same form.

(c) *Thread Investiture.*

The investiture of the Brahmin youth with the sacred thread is an essential with all Brahmins and the ceremony generally takes place at the seventh or ninth year. The performance of the ceremony for the wearing of the thread constitutes the regeneration of the youth without which he does not become entitled to the designation Dwija or "twice-born." Before Oopanayana a Brahmin youth is no more than a Shoodra. "The first birth is from the natural mother, the second from the 'binding on of the girdle';" says Menoo. The sacred thread or Yajnopaveeta is a thin coil of three cotton threads worn over the left shoulder and allowed to hang down diagonally across the body to the right hip. The number of the coils is emblematical of the three divinities, Brahma, Vishnoo and Shiva. The number of coils is doubled or trebled after marriage. The family priest causes the boy to offer a burnt-offering or "Homa" to the entire pantheon of gods, by pouring ghee over the fire. He then invests the youth with the jandiram or sacred cord, letting it fall from over the left shoulder to the right side. He subsequently teaches the Gayatree to the boy, as also the morning, noon, and evening prayers; due attention to which is considered sufficient to remove all sins committed during the day and night. The Gayatree or Gayatrimantra of the brahminical or priestly order is never pronounced aloud. Its literal translation is "Om! earth, air, heaven, Om! Let us meditate on the supreme splendour of the divine sun; may he illuminate our minds." It is considered the most venerable text of the Vedas, and the common respect felt for it is the bond of union amongst the entire priestly order. Cshatriyas and Veisyas are also invested with the thread, with somewhat different ceremonies.

(d) *Celebration of Marriage.*

Brahmins.—The bride's father receives the bridegroom in a room prepared for the purpose, in which are placed the presents intended for the latter, while a cow is tied on the northern side of the room. After a prayer, the bridegroom sits down on a stool or cushion, and the bride's father presents him with two cushions of '*Koosa*' grass, which he places under his feet, an appropriate text being recited each time. He next accepts a vessel of water which he sprinkles first on each foot in succession, and then on both feet together. Then the bride's father fills a vessel with honey, curds, and clarified butter, which he presents to the bridegroom saying 'take the madhooparca.' After the bridegroom has eaten his fill of this, presents are given to the guests. Meanwhile, while the bridegroom is being thus welcomed, the bride bathes, prayers being said. After the bridegroom has tasted the 'madhooparca,' the bride's right hand is placed on his, both having been rubbed with turmeric, and the hands are tied together with 'Koosa' grass by a matron. The bride's father then takes a vessel of water containing 'tila' (Sesamum indicum) and 'Koosa' grass, and pours it on their hands, uttering the words 'Om tat sat,' 'God the existent,' after which he repeats at full length the names and designations of the bridegroom, the bride, and himself, and then solemnly declares 'I give unto thee this damsel adorned with jewels and protected by the lord of creatures,' to which the bridegroom replies 'Well be it.' The bride's father then gives the bridegroom a piece of gold. The bride and bridegroom then walk forth, and he addresses her on the subject of her future duties. The tethered cow is then released, a libation of water is made, and the bride's father knots together the mantles of the bride and bridegroom. The bridegroom then clothes the bride with various ceremonies; the bride then goes to the western side of the fire and sits down on a mat, while the bridegroom offers six oblations of clarified butter, some of which he pours over her hands. They then walk round the fire, the bride first. Several oblations are then made to the sun, the fire, and various deities, with appropriate prayers. The next ceremony is the stepping of seven steps by the bride. It is the most important of all the rites, for the marriage is not complete and irrevocable till the

bride has taken the seventh step. The bridegroom's friend then pours water on the bridegroom's head, and afterwards on the bride's. The bridegroom then takes the bride's hand and recites six texts, expressing his wish for prosperity and progeny. In the evening of the same day, as soon as the stars appear, the bride sits down on a red bull's hide, while the bridegroom makes various oblations to obviate any ill marks that the bride may have on her. The bride salutes the bridegroom, and matrons pour water mixed with leaves upon both. During the three subsequent days the married couple must abstain from factitious salt, live chastely and austerely, and sleep on the ground. On the following day the bridegroom conducts the bride to his own house. After entering the house, a child is placed on the bride's lap, and the bridegroom then takes up the child and offers oblations. Of all these ceremonies, the only one essential to the validity of the marriage is that of the 'seven steps,' the others are mere non-essential accompaniments, intended to impart solemnity. (2) *Vellalar.*—The relations of the parties first of all examine their two 'sathagams' (horoscopes), and if both agree in the eleven essential points, the astrologer is consulted for an auspicious day for arranging the ceremony at the bride's house, where a good feast is provided. In some part of the room a square is formed of choonam, on which is placed a brass lamp, and some cocoanuts and plantains. The bridegroom's sister brings a basket containing three cocoanuts, three or nine plantains, some areca nuts and saffron, which she gives to the bride, for herself and her friends and relations. The nuptial present is then tied up in a piece of white cloth, and given to the bride's father. This finishes the ceremonies for that day. When the day for the marriage ceremony has been fixed, a fig tree branch is set up in the south-west corner of the yard of the bride's house as a 'moohoorta kal' (marriage-post) and a pandal or shed is erected. On the appointed night a number of the bride's relations are sent to fetch the bridegroom in a palkee. When approaching the door some maidens wave lighted camphor, and on entering he is placed on a cot. After eating milk and plantain he comes out to the 'manavaray' (raised dais under the pandal) and sits towards the east. He then returns to a room, is shaved, and bathes; meanwhile the bride bathes in a tank and returns. The bridegroom then sits on the 'manavaray,' and his mother's brother sits by him to receive the gifts. The bridegroom then retires, and the bride in the same way sits on the dais, her mother's brother also receiving the gifts, after which the bride also retires. New cloths are then blessed by the officiating Brahmins, and other aged men, and sent to the rooms of the two. The bride then goes to the kitchen, and adorns a new pot by drawing three lines on it with saffron, and tying three betel leaves to the neck with yellow string. She then fills it with water, and returning to the dais sits down at the bridegroom's right side. The 'thaly' (a jewel fastened to the bride's neck) is put in a little wooden box and blessed by the Brahmin and the assembly, after which the bridegroom slightly ties it round the bride's neck, and they exchange garlands. The marriage is now complete, but the following ceremonies must be performed. The Brahmin ties an iron ring and a bit of saffron to both of their hands. The bride's father then says to the bridegroom's father 'I have given my daughter in marriage to your son.' The couple then unite their hands and walk, round the dais three times, tread upon a grinding stone, look at a star and enter the room. A feast concludes the ceremony. (3) *Yidayar.*—An auspicious day is selected by an examination of horoscopes, on which the bridegroom's party go to the bride's house with presents of a cloth, 3 cocoanuts, betel, 11 plantains, 11 pieces of saffron, and oil, which with the saffron is rubbed on the bride. She then proceeds round the village in a palkee worshipping all the gods in her progress, and then starts for the bridegroom's residence. When the bride enters the room with her ornaments upon her ready for the marriage, her followers pay to the bridegroom's sister what is called 'Bride's room gold.' The bride and bridegroom being seated on the dais the Brahmin makes a ring of grass and puts it together with one of iron on the bridegroom's hand. The Brahmin then takes the thaly which is blessed by the old men, and then tied on the bride's neck by the bridegroom's sister. The ceremony is concluded by pouring out water. (4) *Maravar.*—In this caste there are three different forms:—"*a*" Among the zemindars. The bridegroom's relations take some plantains and jewels to the bride's house, where the marriage is agreed upon. Areca nuts are sent round to the respective relations. The bridegroom sends to the bride's house in a palankeen a weapon, some money, betel, and the thaly. The bridegroom's sister puts the weapon (which is supposed to represent the bridegroom) opposite the bride, and ties the thaly to her neck. The bride is then taken to the bridegroom's house, and a feast is held for three days. "*b*" Among the ordinary class. After the relations have assembled, the bridegroom and the bride bathe and are then seated on the dais. The thaly is then tied on by the bridegroom's sister. The bridegroom walks three times round the dais, followed by the bride, after whom is carried a grind-stone, with fire on it in a chatty. The bride then carries round a pestle, holding it like a child, and her relations give her money. An iron style and a ring are put into a pot of saffron water; the young couple take up these from the pot, and whichever gets the style is said to be the more eminent of the two. "*c*" Among the very poor the ceremonies are few. They simply have a feast, place the bride and bridegroom on the dais, and cause the bridegroom's sister to tie the thaly. (5) *Koravar.*—The bridegroom's party give arrack to the bride's father, who also produces arrack, and after drinking and chewing betel the marriage is arranged and confirmed by the bridegroom's father giving the bride's father a little arrack and tobacco, after which the 'parisam' or nuptial present is settled. A pandal is constructed at the bride's house, to which the bridegroom goes adorned with garlands. The bridegroom's sister then dresses the bride with a new cloth and ties the thaly. The bride and bridegroom sit down under the pandal and their hands are joined by the bride's father. They then walk three times round the dais. The next morning the bridegroom takes the bride home. (6) *Shaunar.*—The dowry and nuptial present having been settled, a pandal is made at the bridegroom's house with a dais in the centre. A bamboo stick or fig tree branch is planted in the south-west corner of the pandal. The bridegroom's uncle is first seated on the dais, while a Brahmin waves a handful of rice round his head and then throws it to the points of the compass; the bridegroom then sits on the dais, and the same ceremony is performed with him. He then makes obeisance to the uncle, and receives from him the thaly and cloth for the bride, which he hands over to his sister. The bridegroom next goes round the village in a palkee, and then goes to the bride's residence, where his sister puts oil on the bride's head, and combs her hair. The bride is then taken in the bridegroom's palkee to a tank where she bathes. The bridegroom then goes to the bride's house, and they are both seated on the dais, where the thaly is put on with the usual ceremonies, and their hands are tied together with a cloth. Afterwards one cloth is put on both, and they rub oil on one another and then bathe. Next evening the couple ride round the village in one palkee. They are then placed on the dais, and over their joined hands water is poured by the bride's father, who repeats the promises of the dowry. After various feasts the couple go finally to the bridegroom's house on the seventh night. (7) *Pullar.*—On the appointed day the bridegroom goes to the bride's house on a pony. The bride goes out and bathes. The thaly is tied on the dais in the usual way, after which the couple go round the village. (8) *Pariahs.*—On the dais are placed twenty-one pots each of which the bridegroom touches in succession, walking round the dais between each touch. The thaly is tied in the usual way, both the bride and bridegroom wearing a string like a Brahmin. On the third morning the couple go in procession, their relations mutually pelting each other with cotton seed. (9) *Vannar* (*Washermen*).—On an appointed day the bridegroom's relations take with them $6\frac{1}{4}$ rupees, 11 measures of rice, 1 cocoanut, a cup of oil, 7 pieces of saffron, and 21 betel leaves tied together in threes, as a bridal present. The mooppan (headman) blesses the thaly which is brought in a basket full of rice, and gives it to the bridegroom, and it is finally tied on the bride's neck by the bride's mother's brother's daughter, while the bridegroom is being adorned in the pandal. After some ceremonies on the dais the couple join hands, walk three times round the dais, and then go into a room where there are 3 new coloured pots; these they take together to the kitchen, and boil rice in them. (10) *Cooloovar.*—On the marriage day the bridegroom gives his father-in-law 3 pigs worth $3\frac{1}{2}$ rupees each, or else 3 fowls, or a dog. The couple are seated upon a pestle holding each other by their little fingers, while the parents mark their foreheads with a mixture of saffron, cotton seed, choonam and rice. The bridegroom ties a silver 8 or 12 anna bit round the bride's neck and leads her home by the little finger. (11) *Cummaular.*—After some ceremonies on the dais, the bridegroom ties on a pilgrim's cloth, holds a torn umbrella, and starts from the pandal nominally to journey to Benares, whereupon the bride's father runs after him and swears that he will give him his daughter, and brings him back. The thaly is then tied on in the usual way, and the couple are rubbed with oil by their brother and sister. The bride then cooks rice in a new pot near the dais, and

gives it with fruit to the washerman of the village. During the ceremonies the bridegroom wears a Brahmin string. (12) *Naickar.*—The rule is that a man must marry his sister's daughter. The bride is conducted to the bridegroom's house, near which a place has been fenced round like a cattle-pen, with a shed inside it, in which the Naickan is married 'in order to remind him that his fathers were without dwelling-places, tending their flocks in the fields.' When the thaly is to be put on, the couple stand up, and the bridegroom treads upon the bride's left foot with his right, a cloth is held between them for a veil round which the bridegroom puts the thaly, which is tied on the bride by his sister. The bride's father says 'I have given my daughter in marriage to M.N.'s son,' after which their hands are tied together, they are seated on two stools, and milk is poured over their heads. After various ceremonies, on the third day a new plough is made by the carpenter, with which the bridegroom turns up two or three yards of earth; the bride levels this earth and sows some seed in it. (13) *Reddies.*—These also must marry their nieces. Before setting out for the bride's house, the Reddy has his head and chin shaved for the first time in his life. The thaly is made of cotton thread, and thus differs from those used by other classes, which are ornamented with gold. The couple go round the village in a palkee, the bride being muffled up in such a manner that none of her face can be seen. The ceremony is concluded by another procession by night, usually illuminated by numerous torches. (14) *Kolliyar Pullar.*—The marriage is arranged at the bride's house by the headman, all the men of the village being present. The bridal present consists of 22 rupees, which are changed into two-anna bits, and mixed with paddy. The bridegroom goes on horseback to a well or tank and bathes, after which the bride is placed on horseback with one of her cousins who covers her head with his own cloth, and takes her to bathe. The thaly is then tied on. Their right hands are joined and water poured over them by the bride's father. They then go into the house, and the chief man takes 1 cocoanut, 7 areca nuts, and 14 betel leaves, and gives them to the bride; she gives them to the bridegroom, worshipping him. The chief man then takes the cocoanut, divides it into two pieces (called respectively the female and male pieces), and gives the piece with the hole in it to the bride, and the other piece to the bridegroom. A feast of three days ends the ceremonies. (15) *Chucklers.*—The bridegroom's sister takes a present and a string of beads to the bride's house, and ties the beads as a thaly on to her neck. On the day of marriage both parties are rubbed with milk. In front of the bride's house the bridegroom sits on a stool with a cloth on it, and the bride pours water on him, after which he does the same to her.

(e) Ceremonies after burial or cremation.

(1) *Twice-born castes.*—The funeral ceremony or 'Carmauntaram' (i.e., 'last deed') is generally performed on a specific day ordained by the Hindoo shastras. The Veishnavites and Shiveites observe it on the sixteenth day; the Cshatriyas on the fourteenth, the Veisyas on the fifteenth, and the Brahmins on the twelfth day after the decease of the individual. The ceremony is composed of several rites, of which the most important are—"*a*" 'Sootravisarjanam,' or 'the divesting of the thread.' The principal person in this ceremony is the wife of the deceased, who in this manner formally commences her widowhood. In the presence of all her relatives and friends, the widow is divested of all her ornaments, after which she is deserted by all the females of the family except the widows, who then take off her thaly and throw it into a pot full of cow's milk. They then place her on a mat, cover her with a new cloth, sprinkle her with salt, and throw some paddy over a sacred light which has been placed in readiness. The widow's relatives and friends then present her with new cloths. "*b*" 'Vapanacarmam,' i.e., the 'shaving ceremony." On the following morning at about 5 o'clock, the 'Curta' (the person whose duty it is to light the funeral pile of the deceased) goes with his relatives and friends to a tank, where he and his nearest relatives have their heads and beards shaved, after which they bathe. The Curta then ties a piece of muslin round his waist, and puts the two mourning marks on his forehead. "*c*" 'Antyashty,' i.e., 'ceremony performed for the benefit of the dead.' The priest makes a figure of 'Koosa' grass representing the deceased, which he places on a bier, and gives to the Curta. The latter places the figure in the north-east corner of a pandal that has been erected. The priest then performs various rites by which the sins of the deceased are supposed to be transferred to the figure, which is finally burnt, and the ashes thrown into the tank, thereby implying the absolution of the soul of the deceased. "*d*" 'Nagna Shraddham,' i.e., 'a gift to the naked.' This ceremony consists in presenting to a Brahmin a blanket, a pair of cloths, food, &c. "*e*" 'Shilabisheca,' i.e., the anointing of the stone.' Three conical stones are glaced on a brass tray, and anointed with sesamum-oil by the Curta, who then wraps them up with some Koosa grass in a piece of linen. Nine Brahmins are then presented with cloths and food, in the name of the Curta's three immediate ancestors, whom the three stones are intended symbolically to represent. "*f*" 'Shilastaupanam,' i.e., 'the placing of the stone.' The three stones are placed on a plantain leaf and worshipped. After this ten Brahmins are presented each with a particular kind of gift, such as a cow, some gold, some oil-seeds, &c. "*g*" 'Shilodvausana,' i.e., 'the seating of the stones.' The stones are placed in a tray and carried by the Curta to a tank, into which he descends gradually, causing the stones to be washed away from the tray. "*h*" 'Poonyauhavachana,' i.e., 'the word of purity.' This is the purification of the Curta, who is considered to be polluted after he has set fire to the funeral pile. The ceremony is concluded by the presentation to a Brahmin of certain gifts, consisting of an elephant, a sheep, and various other articles. This rite is followed by another called 'Shodasham,' which consists in the giving of gifts to sixteen Brahmins. "*i*" 'Sapta-Carnam,' i.e., the 'joining of seven.' The priest mixes raw rice, milk, honey, curds, cow's urine, ghee, and oil-seeds into a mass, and divides it into three portions, intended to represent three of the ancestors of the deceased. By this rite the deceased becomes assimilated with his ancestors, and is entitled to admission into the lowest station in the divine region, up till this time occupied by his father, who now ascends higher. "*k*" 'Swargapatam,' i.e., 'the road to heaven.' This consists in presenting a Brahmin with cloths, food, and money, whereby the great-grandfather of the deceased is supposed to be supported during his progress to heaven. In conclusion, all who have taken any part in the ceremonies assemble and dine in one of the Brahmins' houses in the neighbourhood, and finally disperse after condoling with the widow and the Curta.

(2) *Shoodras.*—Most of the ceremonies described above as observed by the twice-born castes are also observed by Shoodras on the Coromandel Coast and in the interior. The following are the points of difference:—"*a*" Sootravisarjanam. For this ceremony a pandal is erected close to the house. The widow undergoes the first part of the rite as practised amongst the Brahmins. After being divested of all her ornaments she is led by the widows into the pandal and made to sit by the side of the figure described in the Antyashty ceremony. One of the widows then unties the thaly and throws it on a stone placed there by the Brahmin. The remainder of the rite is not usually observed by Shoodras. "*c*" Antyashty. Amongst the Shoodras, this ceremony is only observed if the priest orders it. It is the custom with the poorer classes to make it very much shorter. "*f*" Shilastaupanam. The observance of this ceremony depends upon the means of the nearest relatives of the deceased. "*g*" Shilodvausanam. This ceremony is not observed by all classes. The other rites are fully observed by Shoodras. Minor ceremonies are also observed by Shoodras before the fifteenth day, but these are more sentimental than religious. It must be noted that amongst the Shoodras education and means play an important part in the observance of funeral rites. An educated Shoodra, in good circumstances, will observe all the rites as enjoined in the Shastras for the higher classes; whereas one who is uneducated, though wealthy, will observe only such rites as are prescribed by the Poorohit or family priest. Burning is generally practised by educated Shoodras, and by all those living in large towns. In villages and small towns burying the dead is more usual, except in the case of very wealthy Shoodras who can afford the expenses connected with the ceremony of burning.

(3) *Todahs.*—The ceremonies among the Todahs answering to the above are called the dry funeral, as opposed to the green funeral which accompanies cremation. This observance lasts three days. It celebrates the funeral obsequies of all the members of the tribe who have died during the year. On the first day the Todahs assemble in large numbers at the Kedmaney or funeral house. Dancing and singing go on, and the buffaloes intended to be sacrificed are driven into a kraal. The greater part of this day is spent in feasting. On the second and most important day, the remains are brought out wrapped in a new cloth and placed within the stone

wall surrounding the funeral house. They are then carried to where a hole has been dug at the entrance to the cattle kraal. Each relative throws three handfuls of earth on them and then into the kraal. Buffaloes are then slaughtered, and their bodies placed in a line with the remains. After this a gash is made under the foreleg of a buffalo cow, which has been previously stunned. Some of the blood is given to the kinsmen, who smear it upon the remains muttering " May the sin run away." The procession then proceeds to another stone near the funeral house. A buffalo calf is dragged there and then let loose. It is pursued by all those present, who throw themselves down at intervals so as to touch the ground with their foreheads, and shout " May he enter heaven; may it be well with his good deeds and his sins." The remains are burnt within a circle of stones, with a miniature bow, three arrows, a sickle, an axe, a palm-leaf umbrella, some jaggery, gram and other articles. The fire is lighted at four in the morning, and as it burns, the Todahs wail whilst the Kotahs continue the music. Just as dawn is breaking the music is stopped and the mourning ceases. Water is sprinkled on the embers, a large stone at the entrance of the circle is taken up and a pit dug under it, into which the ashes are scraped and the stone is replaced. A person then enters the circle, and raising a chatty high above his head dashes it to pieces on the stones covering the ashes, bends down, touches the stone with his forehead and goes away. The same prostration is performed by all the others in turn.

APPENDIX No. XXXIV.

HINDOO PROPER NAMES IN ORDINARY USE IN THE MADRAS PRESIDENCY, ARRANGED SO AS TO SHOW THEIR CONSTITUENT PARTS.

(A) MEN'S NAMES AMONG THE SUPERIOR CASTES.

(i) *First or Village Names.*

For specimens of these see the name of any place in Vol. III. It is not however an invariable rule that the first name is taken from a village; it is sometimes taken from a proper name.

(ii) *Second or Proper Names.*

Abboye (Abbáyi, *Tel.*).
Abhiraman (Abiráman, *Tam.*).
Achayalingam (Adchayalingam, *Tam.*).
Achyootan (Aççuthan, *Tam.*).
Adavy (Adavi, *Tel.*).
Akilandayya (Akhilándayya, *Tel.*).
Akooloo (Ákulu, *Tel.*).
Alagappa (*Tel.*).
Alagasingaran (*Tam.*).
Alvanthar (Álavandár, *Tam.*).
Alwar (Ázhvár, *Tam.*).
Ambasankaran (Ambásangaran, *Tam.*).
Amritalingam (Amiruthalingam, *Tam.*).
Amritanayakam (Amiruthanáyagam, *Tam.*).
Amritan (Amiruthan, *Tam.*).
Ananda (Ánanda, *Can.*).
Anandan (*Tam.*).
Anandagherry (Ánandagiri, *Tel.*).
Anandanarayanan (Anandanáráyanan, *Tam.*).
Anandapadmanabha (Anantapadmanábha, *Can.*).
Anandasathasivan (Anandasathásivan, *Tam.*).
Anandateertan (Anandathírttan, *Tam.*).
Anantayya (Anantayya, *Tel.*).
Ankayya (Ankayya, *Tel.*).
Anna (Anná, *Tam.*).
Annacharry (Annáççári, *Tam.*).
Annacootty (Annákkutti, *Tam.*).
Annasawmy (Annásámi, *Tam.*).
Annaujee (Annáji, *Can.*).
Appayya (Appayyá, *Tam.*).
Appadoray (Appátturai, *Tam.*).
Appajee (Appáji, *Can.*).
Apparow (Appárávu, *Can.*).
Appasawmy (Appásámi, *Tam.*).
Appavayyan (Appávayyan, *Tam.*).
Appavoo (Appávu, *Tam.*).
Appoo (Appu, *Can.*).
Appoocootty (Appukkutti, *Tam.*).
Aravamoottoo (Aravamuttu, *Tam.*).
Ardhanareeshwaran (Aruttanárísuvaran, *Tam.*).
Arogyasawmy (Árókkiyasámi, *Tam.*).
Aroomoogam (Árumugam, *Tam.*).
Aroonachellam (Arunáççalam, *Tam.*).
Aroonagherry (Árunagiri, *Tam.*).
Arpootham (Arpputham, *Tam.*).
Aseervautham (Ásírváthan, *Tam.*).
Atchannah (Attsanna, *Tel.*).
Atchayalingam (*Tam.*).
Audayya (Ádayya, *Tel.*).
Audiappa (Ádiyappa, *Tel.*).
Audigocoolam (Áthigógulam, *Tam.*).
Audikeshavoodoo (Ádikéshavudu, *Tel.*)
Audinarayanan (Áthináráyanan, *Tam.*).
Audinarrainsawmy (Áthináráyanasámi, *Tam.*).
Audiseshoo (Áthisésu, *Tam.*).
Audiseshachellam (Ádishéshháchalamu, *Tel.*).
Aundy (Ándi, *Tam.*).
Ayaloo (Ayyalu, *Tel.*).
Ayyadoray (Ayyátturai, *Tam.*).
Ayyappa (Ayyappa, *Can.*).
Ayyasawmy (Ayyásámi, *Tam.*).
Ayyavayyan (Ayyávayyan, *Tam.*).
Badroodoo (Bhadridu, *Tel.*).
Balachendra (Bálachandrudu, *Tel.*).
Balajee (Báláji, *Can.*).
Balakrishnan (Pálakkiruttinan, *Tam.*).
Balakristnasawmy (Pálakkiruttinasámi, *Tam.*).
Balasoobramanyan (Pálasuppiramaniyan, *Tam.*).
Balasoobroya (Bálasubbaráyadu, *Tel.*).
Balasoondram (Pálasundaran, *Tam.*).
Balaprasaud (Bálaprasád, *Can.*).
Balasawmy (Bálasvámi, *Tel.*).
Balavendra (Bálavéndruda, *Tel.*).
Basantaram (Basantarám, *Oor.*).
Basava (*Can.*).
Bauboo (Bábu, *Can.*).
Baulayya (Bálayya, *Tel.*).
Bauloo (Bálu, *Can.*).
Baupanna (Bápanna, *Tel.*).
Baupiraja (Bápirádzu, *Tel.*).
Baupoo (Bápu, *Can.*).
Baushyam (Pásiyam, *Tam.*).
Baushicam (Pásigam, *Tam.*).
Baushyam (Bháshyamu, *Tel.*).
Bautcha (Báksha, *Oor.*).
Bhactavatsa (Bhaktavatsudu, *Tel.*).
Bhadrachellam (Bhadráchalamu, *Tel.*).
Bhagavaty (Pagavathi, *Tam.*).
Bhagavanta (Bhagavantudu, *Tel.*).
Bhagavatichauran (Bhagavaticháran, *Oor.*).
Bhagavateeshwara (Bhágavatísvara, *Tel.*).
Bhaugeeraty (Págírathi, *Tam.*).
Bhaugyam (Pákkiyam, *Tam.*).
Bhaugyanathan (Pákkiyanáthan, *Tam.*).
Bhaunoomoorty (Pánumúrtti, *Tam.*).
Bhawany (Paváni, *Tam.*).
Bhawanishunker (Bhavánishankara, *Can.*).
Bheema (Bhíma, *Can.*).
Bheemasenan, (Pímasénan, *Tam.*).
Bhoojanga (Bhujanga, *Can.*).
Bhootalingam (Púthalingam, *Tam.*).
Bhootam (Bhútamu, *Tel.*).
Bhoovanendra (Bhuvanéndrudu, *Tel.*).
Bilavendrasawmy (Bilavéndrasvámi, *Tel.*).
Biligherry (Biligiri, *Can.*).
Bodhagooroosawmy (Bódhagurusvámi, *Tel.*).
Bungauroo (Bangáru, *Tel.*).
Camaleshan (Kamalésan, *Tam.*).
Canaca (Kanakamu, *Tel.*).
Canacaroya (Kanakaráyadu, *Tel.*).
Canacarutnam (Kanagarattinam, *Tam.*).
Canacasabaupaty (Kanagasabáppathi, *Tam.*).
Canacasabha (Kanagasabai, *Tam.*).
Carimaraly (Karimaraly, *Tam.*).
Caroonaucaran (Karunákaran, *Mal.*).
Carooppan (Karuppan, *Tam.*).
Caumayya (Kámayya, *Tel.*).
Caumeshan (Kámésan, *Tam.*).
Caumeshwaran (Kámésuvaran, *Tam.*).
Causee (Kási, *Tam.*).
Causinathayyyan (Kásináthayyan, *Tam.*).
Causinauthan (Kásináthan, *Tam.*).
Causiviswalingam (Kásivisuvalingam, *Tam.*).
Causjee (Kásji, *Can.*).
Chalamanna (Chelamanna, *Tel.*).
Chandoo (Chantu, *Mal.*).
Chandrabhoovan (Chandrabhuvan, *Oor.*).
Chatoorbhoojam (Shathurppusam, *Tam.*).
Chaumoo (Shámu, *Tam.*).
Chautoo (Cháttu, *Mal.*).
Cheerappa (Chírappa, *Tel.*).
Chellan (Shellan, *Tam.*).
Chellamayya (Chellamayya, *Tel.*).
Chellapaty (Chellapati, *Tel.*).
Chellayya (Chellayya, *Tel.*).
Cheloorea (Chelúriyya, *Tel.*).
Chenchalam (Chanchalamu, *Tel.*).
Chengalroya (Chengalráyadu, *Tel.*).
Chengayya (Chengayya, *Tel.*).
Chengammah (Chengamma, *Tel.*).
Chennakeshavan (Chennakéshavudu, *Tel.*).
Cheppacoorooppoo (Cheppakuruppu, *Mal.*).
Cherooconam (Cherukonam, *Mal.*).
Chidambaram (Shithambaram, *Tam.*).
Chidambarasawmy (Shithambarasámi, *Tam.*).
Chinnoo (Shinnu, *Tam.*).
Chinnadoray (Shinnatturai, *Tam.*).
Chinnappan (Shinnappan, *Tam.*).
Chinnasawmy (Shinnaççámi, *Tam.*).
Chinnayya (Chinnayya, *Tel.*).
Chiranjeevy (Shirañjívi, *Tam.*).
Chittayya (Chittayya, *Tel.*).
Chittannala (Chittannala, *Can.*).
Chockalingam (Shokkalingam, *Tam.*).
Chowdayya (Chaudayya, *Can.*).

Chuckram (Chakramu, *Tel.*).
Chuckrapauny (Shakkarappáni, *Tam.*).
Chuckravurty (Shakkaravartti, *Tam.*).
Chundrashekaran (Shandiraségaran, *Tam.*).
Chundranautha (Chandranád'hudu, *Tel.*).
Chundrayya (Chandrayya, *Tel.*).
Colandasawmy (Kuzhandaisámi, *Tam.*).
Colandavailoo (Kuzhandaivélu, *Tam.*).
Colandayya (Kuzhandaiyyá, *Tam.*).
Condadran (Kondadran, *Mal.*).
Condal (Kondala, *Can.*).
Condala (Kondala, *Can.*).
Condama (Kondama, *Can.*).
Condasarauya (Kondasaráyadu, *Tel.*).
Condayya (Kondayya, *Can.*).
Coolappah (Kulappa, *Can.*).
Coomauran (Komaran, *Tam.*).
Coomauragooroo (Kumáraguru, *Tam.*).
Coomaurappan (Komarappan, *Tam.*).
Coomaurasawmy (Kumárasámi, *Tam.*).
Coonjan (Kuñjan, *Tam.*).
Coonnamboo (Kunnambu, *Mal.*).
Cooppajee (Kuppáji, *Can.*).
Cooppan (Kuppan, *Tam.*).
Cooppoo (Kuppu, *Tam.*).
Cooppoonauthan (Kuppunáthan, *Tam.*).
Cooppoosawmy (Kuppusámi, *Tam.*).
Cooppoosawmy (Kuppusámi, *Tam.*).
Coorayyan (Kurayyan, *Mal.*).
Cooroothalwar (Kurudalvára, *Can.*).
Cooshauldoss (Kusháldásudu, *Tel.*).
Cootoomba (Kutumbamu, *Tel.*).
Coottappan (Kuttappan, *Tam.*).
Coottysawmy (Kuttiççámi, *Tam.*).
Cotandaraman (Kóthandarâman, *Tam.*).
Cotayyan (Kóttayyan, *Tam.*).
Cotilingam (Kódilingam, *Tam.*).
Cullappan (Kallappan, *Tam.*).
Cullaupiraun (Kalláppirán, *Tam.*).
Cullooram (Kallurámudu, *Tel.*).
Culyaunaramayyan (Kalliyánarámayyan, *Tam.*).
Culyaunasoondram (Kalliyánasundaram, *Tam.*).
Cummauran (Kammáran, *Tam.*).
Cummoo (Kammu, *Tel.*).
Cundasawmy (Kandasámi, *Tam.*).
Cunnan (Kannan, *Tam.*).
Cunniaur (Kanniár, *Tam.*).
Cunteerva (Kant'híravudu, *Tel.*).
Custoorirungan (Kattúrirangan, *Tam.*).
Cutchaleshwaran (Kaççálésuvaran, *Tam.*).
Cutchayyan (Kaççayyan, *Tam.*).
Dalwaramjee (Dalvarámaji, *Can.*).
Damodaran (Támótharan, *Tam.*).
Danabaulan (Tanappálan, *Tam.*).
Danaudharan (Tanátharan, *Tam.*).
Dandapauny (Tandabáni, *Tam.*).
Darmadausan (Tarumathásan, *Tam.*).
Dassappan (Tásappan, *Tam.*).
Dasharatan (Tasarathan, *Tam.*).
Datanamoonchy (Datana Munchi, *Can.*).
Datchinamoorty (Taççinámúrtty, *Tam.*).
Dayanandan (Tayánandan, *Tam.*).
Deenadayauloo (Tínathayálu, *Tam.*).
Deirianauthan (Tairiyanáthan, *Tam.*).
Desicamoottoo (Tésigamuttu, *Tam.*).
Desican (Tésigan, *Tam.*).
Devajee (Déváji, *Tel.*).
Devamboo (Tévámbu, *Tam.*).
Devan (Tévan, *Tam.*).
Devanayakam (Tévanáyagam, *Tam.*).
Devanna (Tévanná, *Tam.*).
Devaraz (Dévarádzu, *Tel.*).
Devasahayam (Tévasagáyam, *Tam.*).
Devasicaumany (Tévasigámani, *Tam.*).
Dhanacoty (Tanakkódi, *Tam.*).
Dhananjayan (Tanañjayan, *Tam.*).
Dhanaujee (Dhanáji, *Can.*).
Dharma Row (Dharmaráv, *Can.*).
Dharmalingam (Tarumalingam, *Tam.*).
Dharmanauthan (Tarumanáthan, *Tam.*).
Dharmaraz (Dharmarádzu, *Tel.*).
Dharyam (Dharyam, *Can.*).
Digambaran (Tigambaran, *Tam.*).
Dinakaran (Tinakkaran, *Tam.*).
Divaucaran (Tivákkaran, *Tam.*).
Doddappa (Doddappa, *Can.*).
Dondoo (Tandu, *Tam.*).
Dongrojee (Dongróji, *Can.*).
Doorgaprasaud (Durgáprasáda, *Can.*).
Doorgauchellam (Turukkáççalam, *Tam.*).
Doorgojee (Durgóji, *Can.*).
Dorasawmy (Turaisámi, *Tam.*).
Dorayraghavan (Turairágavan, *Tam.*).
Doraycunnan (Turaikkannan, *Tam.*).
Dowlat Row (Daulattarávu, *Can.*).
Eeshwaran (Îşuvaran, *Tam.*).
Elengéshan (Ezhangusam, *Tam.*).
Fakeera (Pakkíra, *Can.*).
Gajendra (Gajéndrudu, *Tel.*).
Ganapa (Ganapa, *Can.*).
Ganapatisoobban (Kanappathisuppan, *Tam.*).
Ganapaty (Kanappathi, *Tam.*).
Ganeshan (Kanésan, *Tam.*).
Garoodan (Karudan, *Tam.*).
Goondoo (Gundu, *Can.*).
Gooroochendran (Kurusandiran, *Tam.*).
Gooroomoorty (Kurumúrtty, *Tam.*).
Gooroonauthan (Kurunáthan, *Tam.*).
Gooroopautham (Kuruppátham, *Tam.*).
Goorooram (Gururám, *Can.*).
Gooroosawmy (Kurusámi, *Tam.*).
Gooroovappa (Guruvappa, *Can.*).
Gopaul (Gópál, *Can.*).
Gopaulan (Kóppálan, *Tam.*).
Gopaulakrishnan (Kóppálakkiruttinan, *Tam.*).
Gopaulakrishnamma (Gópalakrishnamma, *Tel.*).
Gopaulasawmy (Kóppalasámi, *Tam.*).
Gopayya (Gópayya, *Can.*).
Gopinauthan (Kóppínáthan, *Tam.*).
Gowripaty (Gauripati, *Tel.*).
Gujaputty (Gajapati, *Tel.*).
Gumbheeram (Gambhíramu, *Tel.*).
Gungaudharan (Kangátharan, *Tam.*).
Gungaraz (Gangarádzu, *Tel.*).
Gungayya (Gangayya, *Can.*).
Govardhanan (Kóvarttanan, *Tam.*).
Govinden (Kóvindan, *Tam.*).
Govindoo (Kóvindu, *Tam.*).
Govindarajan (Kóvindarásan, *Tam.*).
Govindaraz (Góvindarádzu, *Tel.*).
Hanoomantha (Hanumanta, *Can.*).
Hansroy (Hansaráyi, *Tel.*).
Haran (Aran, *Tam.*).
Hary (Hari, *Can.*).
Harianna (Hariyanna, *Can.*).
Haridoss (Haridása, *Can.*).
Hariharan (Ariyaran, *Tam.*).
Haripootra (Hariputra, *Can.*).
Harishunker (Harishankarudu, *Tel.*).
Harrackchand (Harakchanda, *Can.*).
Heerojee (Hirójí, *Tel.*).
Hirahchand (Hiráchandu, *Tel.*).
Hirahsing (Hirásingu, *Tel.*).
Iyacannoo (Aiyyákkannu, *Tam.*).
Iyah (Aiyyá, *Tam.*).
Iyaloo (Ayyalu, *Tel.*).
Jaganaudhan (Shagannáthan, *Tam.*).
Jaganaick (Jagannayakudu, *Tel.*).
Jagadheeshan (Shagathísan, *Tam.*).
Jagaroya (Jagaráyadu, *Tel.*).
Jagaráz (Jagarádzu, *Tel.*).
Jamboolingam (Shambulingam, *Tam.*).
Janacara (Janakarudu, *Tel.*).
Janakram (Jánakirámudu, *Tel.*).
Janardhana (Janárdanudu, *Tel.*).
Jananty (Jananti, *Tel.*).
Jaya (*Can.*).
Jayaujoo (Jayáju, *Tel.*).
Jayagopaul (Jayagópáludu, *Tel.*).
Jayaraman (Shayaráman, *Tam.*).
Jayaramdoss (Jayarámadásudu, *Tel.*
Jayashunker (Jayashankarudu, *Tel.*).
Jogayya (Jógayya, *Can.*).
Jotaram (Jótaráma, *Can.*).
Kadirvail (Kathirvélu, *Tam.*).
Keilausam (Kailásam, *Tam.*).
Kelappa (Kélappan, *Mal.*).
Keshava (Késhavudu, *Tel.*).
Keshavan (Késavan, *Tam.*).
Krishnan (Kiruttinan, *Tam.*).
Krishnamma (Krishnamma, *Tel.*).
Krishnasawmy (Kiruttinasámi, *Tam.*).
Laddoo (Laddu, *Tel.*).
Ladoba (Ládóba, *Tel.*).
Laulbhye (Lálubháyi, *Tel.*).
Lavanam (Lavanamu, *Tel.*).
Lilaudhar (Líládharudu, *Tel.*).
Lilaudharvilaus (Líládharavilasudu, *Tel.*).
Lingam (Lingamu, *Tel.*).
Locachendran (Lógaççandiran, *Tam.*).
Locan (Lógan, *Tam.*).
Locanauthan (Lóganáthan, *Tam.*).
Locayyan (Lókkayyan, *Tam.*).
Lutchmanan (Ladchumanan, *Tam.*).
Lutchmanasawmy (Ladchumanasámi, *Tam.*).
Lutchmee (Ladchumi, *Tam.*).
Lutchimeecaundan (Ladchumíkkándan, *Tam.*).
Lutchmipaty (Ladchumíppathi, *Tam.*).
Lutchminarayanan (Ladchumináráyanan, *Tam.*).
Lutchminarasoo (Ladchuminarasu, *Tam.*).
Lutchmivallabhan (Ladchumivallaban, *Tam.*).
Madooranaickam (Mathurainâyagam, *Tam.*).
Madooranauthan (Mathurainâthan, *Tam.*).
Madoorapoory (Mathuraippuri, *Tam.*).
Mahalappa (Máhalappa, *Can.*).
Mahalingam (Magálingam, *Tam.*).
Mahatma (Mahátma, *Can.*).
Mahdevan (Magáthévan, *Tam.*).
Maheshwaran (Magésuvaran, *Tam.*).
Malpaty (Malaippathi, *Tam.*).
Malhary (Malhari, *Can.*).
Manavedhan (Mánavédhan, *Mal.*).
Mariannan (Máriyannan, *Tam.*).
Mariappan (Máriyappan, *Tam.*).
Martoba (Martóba, *Can.*).
Masilaumany (Másilámani, *Tam.*).
Maudhoo (Máthu, *Tam.*).
Maunicam (Mánikkam, *Tam.*).
Maunicasawmy (Mánikkasámi, *Tam.*).
Maunicasoondram (Mánikkasundaram, *Tam.*).
Maunicavausagar (Mánikkavásagar, *Tam.*).
Maunicavail (Mánikkavélu, *Tam.*).
Maurthy (Máruthi, *Tam.*).
Minautchy (Mínádchi, *Tam.*).
Minautchisoondram (Mínádchisundaram, *Tam.*).
Mohan (Móhan, *Can.*).
Monrallayya (Monarallayya, *Can.*).
Moocoondan (Mugundan, *Tam.*).
Moodalgiriappa (Mudalagiriyappa, *Can.*).
Moondappa (Mundappa, *Can.*).
Moonesawmy (Munnusámi, *Tam.*).
Moorahary (Murahari, *Can.*).
Mooroogappan (Murugappan, *Tam.*).
Mooroogesham (Murugésam, *Tam.*).
Moortiappan (Múrttiyappan, *Tam.*).
Moorty (Múrtty, *Tam.*).
Moottayyan (Muttayyan, *Tam.*).
Moottiaul (Muttiyálu, *Tam.*).
Moottoo (Muttu, *Tam.*).
Moottooccomauran (Muttukkumáran, *Tam.*).
Moottookrishnan (Muttukkiruttinan, *Tam.*).
Moottoosawmy (Muttusámi, *Tam.*).
Moottoovailoo (Muttuvélu, *Tam.*).
Mritinjayan (Miruttuñjayan, *Tam.*).
Mullicaurjoonan (Mallikkárççunan, *Tam.*).
Mullappan (Mallappan, *Tam.*).
Mungalam (Mangalam, *Tam.*).
Mungayya (Mangayya, *Can.*).
Mungesha (Mangésha, *Can.*).
Mungimadoss (Mangimadás, *Can.*).
Munjappa (Manjappa, *Can.*).
Mylappan (Mailappan, *Tam.*).

Nadamoony (Náthamuni, *Tam.*).
Nagabhooshanam (Nágappúsanam, *Tam.*).
Nagalingam (Nágalingam, *Tam.*).
Nagamany (Nágamani, *Tam.*).
Nagan (Nágan, *Tam.*).
Nagannan (Nágannan, *Tam.*).
Nagappan (Nágappan, *Tam.*).
Nagaraja (Nágarája, *Can.*).
Nagarutnam (Nágarattinam, *Tam.*).
Nagasawmy (Nágasámi, *Tam.*).
Nagavayyan (Náguvayyan, *Tam.*).
Nageshwaran (Nágésuvaran, *Tam.*).
Nagojee (Nagóji, *Can.*).
Nallamoottoo (Nallamuttu, *Tam.*).
Nallannan (Nallannan, *Tam.*).
Namashivayam (Namaççiváyam, *Tam.*)
Nanoo (Nánu, *Tam.*).
Narahary (Narahari, *Can.*).
Naranayyan (Náranayyan, *Tam.*).
Narasimhan (Narasimman, *Tam.*).
Narasimhooloo (Narasimhudu, *Tel.*).
Narasingam (Narasingam, *Tam.*).
Narayanan (Nárâyanan, *Tam.*).
Narrainsawmy (Náráyanasámi, *Tam.*).
Natarajan (Nadarásan, *Tam.*).
Nataroya (Nataráya, *Can.*).
Nateshan (Natésan, *Tam.*).
Nauthamoony (Náthamuni, *Tam.*).
Nauthan (Náthan, *Tam.*).
Neelacondan (Nílakkondan, *Tam.*).
Neelacuntan (Nílakkandan, *Tam.*).
Nellayappan (Nelliyappan, *Tam.*).
Nithianandam (Nithiyánandam, *Tam.*).
Nullatumby (Nallattambi, *Tam.*).
Numberoya (Nambéráya, *Can.*).
Numpermaul (Namberumál, *Tam.*).
Nummalwár (Nammázhvár, *Tam.*).
Nummayya (Nammayya, *Can.*).
Nundan (Nandan, *Tam.*).
Nunjappa (Nanjappa, *Can.*).
Nunjoonda (Nanjunda, *Can.*).
Nyaunaubharanam (Ñánápparanam, *Tam.*).
Nyaunauthicam (Ñánáthigam, *Tam.*).
Nyaunamany (Ñánamani, *Tam.*).
Nyaunapracausam (Ñánappiragásam, *Tam.*).
Nyaunasicaumany (Ñánasigámani, *Tam.*).
Nyna (Náyana, *Tel.*).
Oomanauthan (Umánáthan, *Tam.*).
Oomamaheshwaran (Umámagésuvaran, *Tam.*).
Oomaun (Umán, *Tel.*).
Oonny (Unni, *Tam.*).
Padiyautchy (Padaiyáççi, *Tam.*).
Padmanaubhan (Pathumanában, *Tam.*)
Palaniandy (Pazhaniyándi, *Tam.*).
Palapoo (Palapu, *Tel.*).
Pallamaraz (Palmarádzu, *Tel.*).
Panacala (Panakalamu, *Tel.*).
Panjoo (Pañju, *Tam.*).
Papautma (Páppáttumá, *Tam.*).
Paramashivan (Paramasivan, *Tam.*).
Paramavatsan (Paramavadsan, *Tam.*)
Parausaran (Parásaran, *Tam.*).
Parasooraman (Parasuráman, *Tam.*).
Paripoornam (Parippúranam, *Tam.*).
Parrayya (Parrayya, *Tel.*).
Partasarathy (Párttasárathi, *Tam.*).
Partheshwaran (Párttésuvaran, *Tam.*)
Parvadeeshan (Párvathísan, *Tam.*).
Pary (Pari, *Tel.*).
Patcheappan (Paççaiyappan, *Tam.*).
Pattaubhiraman (Pattáppiráman, *Tam.*).
Pattaubhy (Pattábi, *Tam.*).
Pattilingam (Pattilingam, *Tam.*).
Paukyanauthan (Pákkiyanáthan, *Tam.*).
Paunigrahy (Pánikkirági, *Tam.*).
Paupaharan (Pápaharan, *Tam.*).
Paupannah (Pappannan, *Tam.*).
Pauparaz (Páparádzu, *Tel.*).
Paupasambhavan (Pápasambavan, *Tam.*).
Pauvanan (Pávanan, *Tam.*).
Payyannah (Paiyanná, *Tam.*).
Peddanna (Peddanna, *Tel.*).
Periyasawmy (Periyasámi, *Tam.*).
Permaul (Perumál, *Tam.*).

Perraz (Perrádzu, *Tel.*).
Pindico (Pindiko, *Tel.*).
Pitchayyan (Piççaiyyan, *Tam.*).
Pitchoomany (Piççumani, *Tam.*).
Pokkan (Pokkan, *Tam.*).
Pombauthy (Pambáthi, *Tam.*).
Pondoo (Pondu, *Tam.*).
Ponnappan (Ponnappan, *Tam.*).
Ponnoo (Ponnu, *Tam.*).
Ponnoosawmy (Ponnusámi, *Tam.*).
Ponrungan (Ponrengan, *Tam.*).
Poondariçautcham (Pundarígádcham, *Tam.*).
Pooddigy (Puddigi, *Tel.*).
Poornayya (Púrnayya, *Can.*).
Pooroohootan (Puruhúthan, *Tam.*).
Poorooshottaman (Purusóttaman, *Tam.*).
Poottanna (Puttanná, *Tam.*).
Pothan (Póthan, *Tam.*).
Pothy (Pothi, *Tam.*).
Powtram (Pavittiram, *Tam.*).
Pracausham (Piragásam, *Tam.*).
Pradhaunan (Pirathánan, *Tam.*).
Prasautham (Pirasátham, *Tam.*).
Prithivy (Piruthivi, *Tam.*).
Pumpaupaty (Pambáppathi, *Tam.*).
Punchanautham (Pañjanatham, *Tam.*).
Punchautcheran (Pañjádcharan, *Tam.*).
Putty (Patti, *Tam.*).
Radhakrishnan (Ráthákkiruttinan, *Tam.*).
Ragannan (Rágannan, *Tam.*).
Raghava (Rághavudu, *Can.*).
Raghavan (Rágavan, *Tam.*).
Raghavendra (Rághavéndra, *Can.*).
Raghoo (Regu, *Tam.*).
Raghoonauthan (Regunáthan, *Tam.*).
Raghoopaty (Reguppathi, *Tam.*).
Raghoorauman (Reguráman, *Tam.*).
Raghooveeran (Reguvíran, *Tam.*).
Ragottaman (Regóttaman, *Tam.*).
Raja (Rásá, *Tam.*).
Rajabahaudur (Rájá-Bahadúr, *Can.*).
Rajagopaulan (Rásagóppálan, *Tam.*).
Rajagopaulasawmy (Rásagópalasámi, *Tam.*).
Rajagumbheeran (Rásagambíran, *Tam.*)
Rajalingam (Rásalingam, *Tam.*).
Rajam (Rásam, *Tam.*).
Rajaram (Rájaráma, *Can.*).
Rajarutnam (Rásarettinam, *Tam.*).
Rajashekharan (Rásaségaran, *Tam.*).
Rajeshwaran (Rásésuvaran, *Tam.*).
Rajavailoo (Rásavélu, *Tam.*).
Rajoo (Rású, *Tam.*).
Ramabrahman (Rámappiramman, *Tam.*).
Ramachendran (Rámaççandiran, *Tam.*).
Ramachendrayyan (Rámaççandirayyan, *Tam.*).
Ramadevan (Rámathévan, *Tam.*).
Ramagooroobrahmam (Rámaguruppirammam, *Tam.*).
Ramakrishnan (Rámakkiruttinan, *Tam.*).
Ramalingam (Rámalingam, *Tam.*).
Ramalingasawmy (Rámalingasámi, *Tam.*).
Ramamoorty (Rámamúrtty, *Tam.*).
Raman (Ráman, *Tam.*).
Ramanna (Rámanna, *Tam.*).
Ramanauthan (Rámanáthan, *Tam.*).
Ramamritam (Rámámirutham, *Tam.*).
Ramanoojam (Rámánnsam, *Tam.*).
Ramanooja (Rámánujudu, *Tel.*).
Ramaseshan (Rámasésan, *Tam.*).
Ramasimham (Rámasimmam, *Tam.*).
Ramasomayaj (Rámasómayáji, *Tel.*).
Ramasoobboo (Rámasuppu, *Tam.*).
Ramasoobramanyan (Rámasuppiramaniyan, *Tam.*).
Ramasawmy (Rámasámi, *Tam.*).
Ramavurma (Rámavarmma, *Mal.*).
Ramayya (Rámayyá, *Tam.*).
Ramdoss (Rámathásan, *Tam.*).
Ramoony (Rámunni, *Mal.*).
Ranaca (Ranaka, *Can.*).
Ranaveeran (Ranavíran, *Tam.*).
Ranavicraman (Ranavikkiraman, *Tam.*)

Ravanan (Rávanan, *Tam.*).
Rohicanta (Róhikántudu, *Tel.*).
Rohidass (Róhidás, *Can.*).
Roocmam (Rukmamu, *Tel.*).
Roopavilatchana (Rúpavilakshanudu, *Tel.*).
Royanandam (Ráyánandamu, *Tel.*).
Royappan (Ráyappan, *Tam.*).
Royir (Ráyiru, *Can.*).
Rungabhashyam (Rengappásiyam, *Tam.*).
Rungamannaur (Rengamannár, *Tam.*).
Rungan (Rengan, *Tam.*).
Runganadhan (Renganáthan, *Tam.*).
Rungappa (Rengappá, *Tam.*).
Rungappan (Rengappan, *Tam.*).
Rungasheshan (Rengasésan, *Tam.*).
Rungasawmy (Rengasámi, *Tam.*).
Rungayyah (Rengayyá, *Tam.*).
Rungottaman (Rengóttaman, *Tam*).
Rutnam (Rettinam, *Tam.*).
Rutnangapauny (Rettinángappáni, *Tam.*).
Rutnasabhaupathy (Rettinasabáppathi, *Tam.*).
Rutnavailoo (Ratnavélu, *Tel.*).
Ryroo (Rairu, *Mal.*).
Sabhaupathy (Shabáppathi, *Tam.*).
Sabharutnam (Shabárettinam, *Tam.*).
Sadanandan (Shathánandan, *Tam.*).
Sadaushivan (Shathásivan, *Tam.*).
Sadagopan (Shadagóppan, *Tam.*).
Sahasrabauhoo (Shagattirabáhu, *Tam.*).
Sahasranauman (Shagattiranáman, *Tam.*).
Sahasranayanan (Shagattiranayanan, *Tam.*).
Sahasrapauny (Shagattirappáni, *Tam.*),
Saithoo (Shéthu, *Tam.*).
Saithoopaty (Shéthuppathi, *Tam.*).
Sanandana (*Can.*).
Sanjeevan (Shañjívan, *Tam.*).
Sankanna (Shangannan, *Tam.*).
Santappa (Shántappa, *Can.*).
Sanyausayyan (Shanniyásiyayyan, *Tam.*).
Sarabhalingam (Sharabalingam, *Tam.*)
Sarangapauny (Shárangappáni, *Tam.*),
Sarveshwaran (Sharvésuvaran, *Tam.*).
Sarvottaman (Sharvóttaman, *Tam.*).
Sarwabhooman (Shárvappúman, *Tam.*)
Sarwanamoottoo (Sharavanamuttu, *Tam.*).
Sarwanan (Sharavanan, *Tam.*).
Satyavauthy (Shattiyaváthi, *Tam.*).
Saumiga (Sámiga, *Can.*).
Savarinauthan (Shavarináthan, *Tam.*).
Sawmayya (Shámayyan, *Tam.*).
Sawmimoottoo (Shámimuttu, *Tam.*).
Sawminauthan (Shámináthan, *Tam.*).
Sawminauthan (Shámináthan, *Tam.*).
Sawmy (Shámí, *Tam.*).
Sayanna (Sáyanna, *Tel.*).
Seetaraman (Shítháráman, *Tam.*).
Seetaramasawmy (Shíthárámasámi, *Tam.*).
Seetaupathy (Shítháppathi, *Tam.*).
Seetayyah (Shíthayyá, *Tam.*).
Selvadoray (Shelvathurai, *Tam.*).
Selvanayagam (Shelvanáyagam, *Tam.*)
Selvaraz (Selvarádzu, *Tel.*).
Sentilvailoo (Sentilavélu, *Tel.*).
Setházvallabhae (Shitávallabha, *Tel.*).
Shambhoo (Shambu, *Tam.*).
Shantacaura (Shántákára, *Can.*).
Shauly (Sháli, *Tam.*).
Shaumbamoorthy (Shámbamúrtti, *Tam.*)
Shaumban (Shámban, *Tam.*).
Shaumbasivan (Shámbasivan, *Tam.*).
Shaumbayyan (Shámbayyan, *Tam.*).
Shaurathy (Shárathi, *Tam.*).
Shekharan (Shégaran, *Tam.*).
Sheshachellam (Shésásalam, *Tam.*).
Sheshagiry (Shésagiri, *Tam.*).
Sheshan (Shésan, *Tam.*).
Sheshashayana (Shéshashayanudu, *Tel.*).
Sheshaudharan (Shesátharan, *Tam.*).
Sheshaudry (Shésáttiri, *Tam.*).

Sheshayya (Shésayyá, *Tam.*).
Shikhaumany (Shigámani, *Tam.*).
Shivachidambram (Shivaççitham-baram, *Tam.*).
Shivacoomauran (Shivakkumáran, *Tam.*).
Shivagooroo (Shivaguru, *Tam.*).
Shivanandam (Shivánandam, *Tam.*).
Shivanauthan (Shivanáthan, *Tam.*).
Shivaramakrishnan (Shivarámak-kiruttinan, *Tam.*).
Shivagooroonautham (Shivakkuruná-tham, *Tam.*).
Shivajee (Shiváji, *Can.*).
Shivapatham (Shivappatham, *Tam.*).
Shivappan (Shivappan, *Tam.*).
Shivaraman (Shivaráman, *Tam.*).
Shivasunkaran (Shivasangaran, *Tam.*).
Shivayyan (Shivayyan, *Tam.*).
Shobhanaudry (Shóbanáttiri, *Tam.*).
Shooladharan (Shúlatharan, *Tam.*).
Shoolapauny (Shúlappáni, *Tam.*).
Shreeananthasoobbrahmanyan (Shiríyanandasuppiramaniyan, *Tam.*).
Shreecaunta (Shríkántudu, *Tel.*).
Shreekrishnan (Shiríkkiruttinan, *Tam.*).
Shreenivasamoorty (Shirínivása-múrtty, *Tam.*).
Shreenivas (Shrínivásudu, *Tel.*).
Shreenivausan (Shirínivásan, *Tam.*).
Shreeraman (Shiríráman, *Tam.*).
Shreerama (Shrírámudu, *Tel.*).
Shreeramachandran (Shirírámaççan-diran, *Tam.*).
Shreerangan (Shirírangan, *Tam.*).
Shreevullabhan (Shirívallaban, *Tam.*).
Shungoonny (Shangunni, *Mal.*).
Shunkaran (Shangaran, *Tam.*).
Shunkaranarayanan (Shangaranárá-yanan, *Tam.*).
Shunmookham (Shanmugam, *Tam.*).
Shunmookhasoondram (Shanmuga-sundaram, *Tam.*).
Siddayyan (Shittayyan, *Tam.*).
Sikalagary (Sikalagari, *Tel.*).
Simhachellam (Simháchalamu, *Tel.*).
Sinayyah (Shinnayyá, *Tam.*).
Singam (Shingan, *Tam.*).
Singapermaul (Shingapperumál, *Tam.*).
Singaravailoo (Singáravélu, *Tel.*).
Skandan (Kandan, *Tam.*).
Solayappan (Shólaiyappan, *Tam.*).
Somachellam (Shómáççalam, *Tam.*).
Soman (Shóman, *Tam.*).
Somanauthan (Shómanáthan, *Tam.*).
Somappan (Shómappan, *Tam.*).
Somaraz (Sómarádzu, *Tel.*).
Somasoondram (Shómasundaram, *Tam.*).
Somayaujee (Sómayáji, *Tel.*).
Soobban (Shuppan, *Tam.*).
Soobbannan (Shuppannan, *Tam.*).
Soobbaramayyan (Shupparámayyan, *Tam.*).
Soobbaraya (Subbaráyudu, *Tel.*).
Soobbaroyen (Shuppanáyan, *Tam.*).
Soobbayyan (Shuppayyan, *Tam.*).
Soobboosawmy (Shuppuççámi, *Tam.*).
Soobrahmanyan (Shuppiramaniyan, *Tam.*).
Soodarshanan (Shutharisanan, *Tam.*).
Sookhadayakan (Shugatháyakkan, *Tam.*).
Soomookhan (Shumugan, *Tam.*).
Soondram (Shundaram, *Tam.*).
Soondrasheshoo (Shundarasésú, *Tam.*).
Soondrashiva (Sundarashivudu, *Tel.*).
Soondravarathan (Shundaravarathan, *Tam.*).
Soondraraman (Shundararáman, *Tam.*).
Soondraramayyan (Shundararámay-yan, *Tam.*).
Soorannan (Shurannan, *Tam.*).
Soory (Shúri, *Tam.*).
Sooryamoorty (Shúriyamúrtti, *Tam.*).
Sooryanarayanan (Shúriyanaráyanan, *Tam.*).
Sooshena (Sushénudu, *Tel.*).
Soovurma (Suvarmman, *Mal.*).
Sowbhaugyam (Shaubákkiyam, *Tam.*).
Sumbandamoorty (Shambanda-múrtti, *Tam.*).
Sumpungy (Shambangi, *Tam.*).
Swayambhoo (Shuvayambú, *Tam.*).
Tandavaroyan (Tándavaráyan, *Tam.*).
Tanicauchellam (Tanigásalam, *Tam.*).
Tarahchand (Tárachand, *Can.*).
Tayoomaunasawmy (Táyumánasámi, *Tam.*).
Tayoonny (Tayyunny, *Tam.*).
Teppermaul (Tépperumál, *Tam.*).
Tillainaickam (Tillaináyagam, *Tam.*)
Timmy (Timmadu, *Tel.*).
Timmappa (*Tel.*).
Timmayya (*Tel.*).
Tiroocaumayyan (Tirukkámayyan, *Tam.*).
Tiroomalasawmy (Tirumalaisámi, *Tam.*).
Tiroomanjan (Tirumañjan, *Tam.*).
Tiroomoorty (Tirumúrtty, *Tam.*).
Tiroomullay (Tirumalai, *Tam.*).
Tiroonarayanan (Tirunáráyanan, *Tam.*).
Tirooveeraroyan (Tiruvíraráyan, *Mal.*)
Tiroovengadam (Tiruvengadam, *Tam.*).
Tiroovengadiah (Tiruvengadayya, *Tam.*).
Tiroovengadasawmy (Tiruvengada-sámi, *Tam.*).
Tiroovullarappan (Tiruvallarappan, *Tam.*).
Tondoo (Tondu, *Tam.*).
Toolasingam (Tulasingam, *Tam.*).
Toolasingapermaul (Tulasingap-perumál, *Tam.*).
Toolsy (Tulasi, *Tam.*).
Trinethran (Tirinéttiran, *Tam.*).
Triyambakan (Tiriyambagan, *Tam.*).
Tumbidoray (Tambitturai, *Tam.*).
Tumboo (Tambu, *Tam.*).
Tumbooraun (Tamburán, *Tam.*).
Tumboosawmy (Tambusámi, *Tam.*).
Tumanna (Tammanna, *Tel.*).
Tungaraj (Tangarású, *Tam.*).
Tungasawmy (Tangasámi, *Tam.*).
Tungavailoo (Tangavélu, *Tam.*).
Tunniyachellam (Tanniyásalam, *Tam.*).
Tyaugarajan (Tiyágarásan, *Tam.*).
Tyaugaroyan (Tiyágaráyan, *Tam.*).
Tyaugesan (Tiyágésan, *Tam.*).
Vadamalay (Vadamalai, *Tam.*).
Vadivailoo (Vadivélu, *Tam.*).
Vailoo (Vélu, *Tam.*).
Valliyanauthan (Valliyanáthan, *Tam.*).
Varadarangam (Varatharengam, *Tam.*).
Varadaraz (Varadarádzulu, *Tel.*).
Varathan (Varathan, *Tam.*).
Varauha (Varáha, *Tel.*).
Vasoodeva (Vásuthévan, *Tam.*).
Vaumanan (Vámanan, *Tam.*).
Vedachellam (Véthásalam, *Tam.*).
Vedanaickam (Véthanáyagam, *Tam.*).
Vedauntam (Véthándam, *Tam.*).
Veerappan (Vírappan, *Tam.*).
Veeraraghavan (Víraràgavan, *Tam.*).
Veerasawmi (Virásámi, *Tam.*).
Veidyalingam (Vaittilingam, *Tam.*).
Veidyanauthan (Vaittináthan, *Tam.*).
Veicoontam (Vaigundam, *Tam.*).
Vencanna (Vengauná, *Tam.*).
Vencappa (Vengappá, *Tam.*).
Vencasawmy (Vengásámi, *Tam.*).
Vencattoo (Vengattu, *Tam.*).
Vencatachellam (Vengadásalam, *Tam.*).
Vencatacunniah (Venkata Kanayya, *Tel.*).
Vencatagherry (Venkatagiri, *Tel.*).
Vencatajagam (Venkatajagmu, *Tel.*).
Vencatakrishnan (Vengadakkirutti-nan, *Tam.*).
Vencatanarasanna (Venkatanara-sanna, *Tel.*).
Vencatanarasingan (Vengattanara-singan, *Tam.*).
Vencatapaty (Venkatapati, *Tel.*).
Vencatappa (Venkatappa, *Tel.*).
Vencataprasaud (Venkataprasádu, *Tel.*).
Vencataraman (Vengattaráman, *Tam.*)
Vencataramanan (Vengattaramanan *Tam.*).
Vencataramaunoojam (Vengattarámá-nusam, *Tam.*).
Vencatarungan (Vengattarengan, *Tam.*).
Vencatarutnam (Vengattarettinam, *Tam.*).
Vencatasheshan (Vengadasésan, *Tam.*)
Vencatasoobboo (Vengadasuppu, *Tam.*).
Vencateshan (Vengadésan, *Tam.*).
Vencateshwaran (Vengadésuvaran, *Tam.*).
Vencayya (Venkayya, *Tel.*).
Vencoba (Venkóba, *Can.*).
Vengoo (Vengú, *Tam.*).
Vijayaraghavan (Visayarágavan, *Tam.*).
Vijayarungan (Visayarengan, *Tam.*).
Vinayakam (Vináyagam, *Tam.*).
Vinayakasoondram (Vináyagasunda-ram, *Tam.*).
Vishwanauthan (Visuvanáthan, *Tam.*).
Vishweshwaran (Visuvésuvaran, *Tam.*)
Vittala (Vit'hala, *Can.*).
Yagappah (Yágappa, *Tel.*).
Yecaumbaram (Égámbaram, *Tam.*).
Yecaumbareshwaran (Égámbarésu-varan, *Tam.*).
Yecaundalingam (Égándalingam, *Tam*).
Yedoocoolam (Edukulamu, *Tel.*).
Yegneshwaran (Ekkiyésuvaran, *Tam.*).
Yelancooly (Ézhanguli, *Tam.*).
Yelannan (Ellannan, *Tam.*).
Yelianna (Eliyanna, *Tel.*).
Yellan (Ellan, *Tam.*).
Yellayyan (Ellayyan, *Tam.*).
Yelyapermaul (Ilaiyapperumál, *Tam.*).
Yempermanaur (Emberumánár, *Tam.*).
Yeracayya (Erakayya, *Tel.*).
Yethiraz (Etirádzu, *Tel.*).
Yethiyappan (Yathiyappan, *Tam.*).
Yethirajan (Yathirásan, *Tam.*).
Yogappah (Yógappa, *Tel.*).
Yogendra (Yógendrudu, *Tel.*).
Yogeshan (Yógésan, *Tam.*).
Yogeshwaran (Yógísuvaran, *Tam.*).
Yogivullabhan (Yógívallaban, *Tam.*).

(iii) *Third Names, or Caste Profession and Honorific Names.*

NOTE.—Words marked * represent Caste, words marked † represent Profession, and words marked ‡ are Honorific. It must be understood that but a very small proportion of the terms indicating distinctions of caste are employed as third names.

Achar (Áchár, *Tel.*).‡
Achariar (Ásáriyar, *Tam.*).
Acharloo (Áchárlu, *Tel.*).‡
Acharry (Áchári, *Tel.*).‡
Adiga (Adiga, *Can.*). ‡
Adiyody (Atiyóti, *Mal.*).*‡
Alwa (Álva, *Can.*).‡
Ambalavausy (Ambalavási, *Mal.*).*
Anna (Anna, *Can.*).‡

Appa (Appa, *Can.*).‡
Apparkah (Apparká, *Can.*).‡
Aray (Arai, *Can.*).‡
Asaury (Ásári, *Tam.*). ‡ *
Avadhauny (Avadháni, *Tel.*).‡
Ayyar (Aiyyar, *Tam.*).‡
Ayyangar (Aiyyangár, *Tam.*).‡
Balkooroya (Balkuráya, *Can.*).‡
Ballaula (Ballála, *Can.*).*
Bandiga (*Can.*).‡
Bangara (*Can.*).‡
Bantah (Bantá, *Can.*).* ‡
Bauliga (Báliga, *Can.*).‡
Beidya (Baidya, *Can.*).* ‡
Belchampauda (Belchampáta, *Mal.*).‡
Bhandaury (Bhandári, *Can.*).‡
Bhat (Bhatta, *Can.*).† ‡
Bhatjy (Bhatji, *Can.*).† ‡
Bhatta (Bhatta, *Can.*).† ‡
Bichormah (Biççormma, *Mal.*).‡
Brahminy (Bráhmini, *Can.*).‡
Cadamannaya (Kadamannáya, *Can.*).‡
Cadambah (Kadambá, *Can.*).‡
Cakkillaya (Kakkilláya, *Can.*).‡
Calcatta (Kalkatta, *Can.*).‡
Calcoora (Kalkura, *Can.*).‡
Calloora (Kallúra, *Can.*).‡
Camptee (Kamti, *Can.*).‡
Caraunta (Káránta, *Can.*).‡
Charry (Ásári, *Tam.*).‡
Chettiar (Shettiyár, *Tam.*).* ‡
Chetty (Shetty, *Tam.*).* ‡
Chitty (Shitty, *Tam.*).* ‡
Chowtar (Chautara, *Can.*).‡
Codiya (Kodiya, *Can.*).‡
Coodoova (Kuduva, *Can.*).‡
Cooroopoo (Kurppu, *Mal.*).‡
Devy (Dévi, *Tel.*).‡
Dicshita (Díkshita, *Can.*).‡
Dolia (Dóliya, *Can.*).‡
Doolia (Dúliya, *Can.*).‡
Doray (Turai, *Tam*).‡
Doss (Dás, *Can.*).‡
Eitaula (Aitála, *Can.*).‡
Eitauney (Aitáne, *Mal.*).†
Gadiyaura (Gadiyára, *Can.*).‡
Gauniga (Ganiga, *Can.*).*
Gooricaura (Gurikára, *Can.*).‡
Gowda (Gauda, *Can.*).* ‡
Halamby (Hálambi, *Can.*).‡

Hatwaura (Hatvára, *Can.*).‡
Hebbaura (Hebbára, *Can.*).‡
Heggadey (Heggade, *Can.*).* ‡
Henja (*Can.*).‡
Herala (*Can.*).‡
Holeya (*Can.*).*
Holla (*Can.*).‡
Hundey (Hande, *Can.*).‡
Indra (*Can.*).* † ‡
Iyah (Ayya, *Tel.*).‡
Iyer (Aiyyar, *Tam.*).‡
Jee (Jí, *Hind.*).‡
Joishy (Joishi, *Can.*).† ‡
Jung (Jang, *Hind.*).‡
Kedilaya (Kediláya, *Can.*).‡
Kekoonnaya (Kékunnáya, *Can.*).‡
Kiny (Kini, *Can.*).‡
Laddah (Laddá, *Hind.*).‡
Laulah (Lálá, *Hind.*).*
Madhyasta (*Can.*).‡
Madivaula (Madivála, *Can.*).*
Malla (Malla, *Can.*).‡
Malliah (Mallayya, *Can.*).‡
Marcaula (Marakála, *Mal.*).‡
Mauryar (Márayár, *Mal.*).* ‡
Mayya (*Mal*).‡
Melaunta (Mélánta, *Can.*).‡
Menon (Menón, *Mal.*).* ‡
Moily (Moili, *Can.*).* ‡
Moodelliar (Muthaliyár, *Tam.*).* ‡
Moodelly (Muthali, *Tam.*).* ‡
Mooloo (Mulu, *Can.*).‡
Mull (Mal, *Hind.*).‡
Nadaun (Nádán, *Tam.*).* ‡
Naick (Náyakudu, *Tel.*).* ‡
Naicken (Náyakkan, *Tam.*).* ‡
Naidoo (Náyudu, *Tel.*).* ‡
Naurada (Nárada, *Can.*).‡
Naury (Nári, *Can.*).‡
Nauriga (Náriga, *Can.*).‡
Nattaun (Náttán, *Tam.*).* ‡
Nayanaur (Náyanár, *Tam.*).‡
Nayar (Náyar, *Mal.*).* ‡
Nayary (Nayari, *Can.*).* ‡
Numbiaur (Nampiyár, *Mal.*).* ‡
Numbidy (Nambidi, *Mal.*).* ‡
Numboory (Nambúri, *Mal.*).* ‡
Ocoonnaya (Vokunnáya, *Can.*).‡
Oodpa (Údpa, *Can.*).‡
Oopaudya (Upádhyáyulu, *Tel.*).‡

Ooraula (Urála, *Can.*).‡
Paccala (Pakkala, *Can.*).‡
Padiatchy (Padaiyáççi, *Tam.*).*
Palah (Pálá, *Can.*).‡
Pandauram (Pandáram, *Tam.*).* ‡
Pandya (Pándiyan, *Tam.*).* ‡
Panikeray (Panikkere, *Mal.*).‡
Patnaick (Pattanáyakkan, *Mal.*).‡
Pattar (*Mal.*).*
Pattaubhy (Pattábhi, *Can.*).‡
Pei (Pai, *Can.*).‡
Pergadey (Pergade, *Can.*).‡
Pillay (Pillai, *Tam.*).* ‡
Poojarry (Pujári, *Can.*).† ‡
Poonichattaya (Punichattáya, *Can.*).‡
Poonja (Punja, *Can.*).‡
Pooraunica (Puránikulu, *Tel.*).† ‡
Prabhoo (Prabhu, *Can.*).‡
Prasaud (Prasád, *Hind.*).‡
Pundit (Pandita, *Can.*).‡
Punt (Pantulu, *Tel*).‡
Rahoot (Ráhutu, *Tel.* from *Mah.*).* ‡
Rajah (Rájá, *Tel.*).* ‡
Raz (Radzu, *Tel.*).* ‡
Razooloo (Rádzulu, *Tel.*).* ‡
Reddy (Reddi, *Tel.*).* ‡
Royadoo (Ráyadu, *Tel.*).* ‡
Royaloo (Ráyalu, *Tel.*).* ‡
Royaroo (Ráyaru, *Can.*).* ‡
Row (Rávu, *Tel.*).‡
Sah (Sá, *Can.*).‡
Savanta (Sávanta, *Can.*).‡
Shadanga (*Can.*).‡
Shanbogue (Shánabhóga, *Can.*).† ‡
Shastry (Sháttiri, *Tam.*).‡
Shenay (Shenai, *Can.*).‡
Sheraigar (Sheregára, *Can.*).* ‡
Shiddanty (Shittándi, *Tam.*).
Sing (Singh, *Hind.*).‡
Tiroonamboo (Tirunumpu, *Mal.*).‡
Tolaur (Tolára, *Can.*).‡
Veidya (Vaittiyan, *Tam.*).† ‡
Vellaula (Vellálan, *Tam.*).* ‡
Wodeya (Odeya, *Can.*).‡
Warriyan (Váriyan, *Mal.*).‡
Yadeyaula (Yadeyála, *Can.*).‡
Yajee (Yájí, *Can.*).‡
Yejamaun (Yajamána, *Mal.*).‡
Yembraundry (Embrántiri, *Mal.*).*

(B) WOMEN'S NAMES AMONG THE SUPERIOR CASTES.

Alamail (Alamélu, *Tam.*).
Ammany (Ammani, *Tam.*).
Ammye (Ammáyi, *Tel.*).
Andaul (Ándálu, *Tam.*).
Attsamma (Attsamma, *Tel.*).
Audiyamma (Ádiyamma, *Tel.*).
Boottsamma (Buttsamma, *Tel.*).
Canacamma (Kanakamma, *Tel.*).
Coopamma (Kuppamma, *Tel.*).

Lutchmee (Ladchumi, *Tam.*).
Meenautchee (Mínákshi, *Tel.*).
Mooniyammah (Muniyammá, *Tam.*).
Mootammah (Muttammá, *Tam.*).
Mungalam (Mangalam, *Tam.*).
Mungammah (Mangammá, *Tam.*).
Narasamma (Narasamma, *Tel.*).
Parvaty (Párvati, *Tel.*).
Sheetamma (Shítamma, *Tel.*).

Sheshamma (Shéshamma, *Tel.*).
Soobbamma (Subbamma, *Tel.*).
Soondry (Shundari, *Tam.*).
Teily (Taili, *Tam.*).
Tye (Táye, *Tam.*).
Vencamma (Venkamma, *Tel.*).
Vencatamma (Venkatamma, *Tel.*).
Vulliyammay (Valliyammai, *Tam.*).

(C) MEN'S NAMES AMONG THE PARIAH TRIBES (THESE HAVING ONLY ONE PROPER NAME).

Alagan (Azhagan, *Tam.*).
Ammausy (Ammási, *Tam.*).
Angara (*Can.*).
Aulay (Álai, *Tam.*).
Auttangaraiyaun (Áttangaraiyán, *Tam.*).
Badavoottaun (Padavuttán, *Tam.*).
Basa (Basudu, *Tel.*).
Battaran (*Mal.*).
Beeran (Bíran, *Mal.*).
Beira (Baira, *Can.*).
Belloo (Bellu, *Mal.*).
Bolan (Bólan, *Mal.*).
Bomma (Bommudu, *Tel.*).
Bory (Borudu, *Tel.*).
Cauriyan (Káriyan, *Tam.*).
Caury (Kári, *Can.*).
Cauttaun (Káttán, *Tam.*).
Chainan (Chénan, *Mal.*).
Chakkan (Chakkan, *Mal.*).
Chavacauroo (Chavakáru, *Can.*).
Chellacooty (Shellakkutti, *Tam.*).
Chiccootoo (Chikkutu, *Tel.*).
Chikka (*Can.*).
Chiriyan (Chiriyan, *Mal.*).

Chittray (Shittirai, *Tam.*).
Choma (Chóma, *Can.*).
Choocra (Chukra, *Can.*).
Cochan (Kóchan, *Mal.*).
Coondan (Kúndan, *Tam.*).
Coondauran (Kundáran, *Mal.*).
Coonnaunan (Kunnánan, *Mal.*).
Coonny (Kunni, *Mal.*).
Cooppan (Kuppan, *Tam.*).
Cootty (Kutti, *Mal.*).
Culla (Kalludu, *Tel.*).
Cullan (Kallan, *Tam.*).
Cunny (Kanni, *Tam.*).
Dairey (Dére, *Can.*).
Doorga (Durgudu, *Tel.*).
Eita (Aita, *Can.*).
Giriya (Giriyudu, *Tel.*).
Gooroova (Guruvudu, *Tel.*).
Iroosan (Irusan, *Tam.*).
Isamba (Isambudu, *Tel.*).
Kamala (Kamaludu, *Tel.*).
Kariyan (Kariyan, *Tam.*).
Katchan (Kaççan, *Tam.*).
Kinny (Kinni, *Can.*).
Kocha (Kócha, *Can.*).

Kodiyan (*Tam.*).
Konan (Kónan, *Tam.*).
Kookka (Kukka, *Can.*).
Mauda (Mádudu, *Tel.*).
Mangauly (Mángáli, *Tam.*).
Mangauly (Mangáli, *Tel.*).
Manikkan (Mánikkan, *Mal.*).
Mannan (*Tam.*).
Mauran (Máran, *Tam.*).
Maury (Mári, *Tam.*).
Moocan (Múkkan, *Tam.*).
Mooniyan (Muniyan, *Tam.*).
Moottan (Muttan, *Tam.*).
Moottayyan (Muttayyan, *Tam.*).
Mottay (Mottai, *Tam.*).
Nagan (Nágan, *Tam.*).
Nandan (Nandan, *Tam.*).
Nausan (Násan, *Tam.*).
Nayinan (*Tam.*).
Neelan (Nílan, *Tam.*).
Noongilaun (Nungalán, *Tam.*).
Otchan (Óççan, *Tam.*).
Palaiyattaun (Pálaiyattán, *Tam.*).
Panjy (Panji, *Can.*).
Parasan (*Tam.*).

Putchay (Paççai, *Tam.*).
Paunan (Pánan, *Mal.*).
Pavandy (Pávádai, *Tam.*).
Periyaun (Periyán, *Tam.*).
Permaul (Perumál, *Tam.*).
Poccalan (Pokkalan, *Mal.*).
Ponnan (Ponnan, *Tam.*).
Poondy (Púndi, *Tam.*).
Posoocan (Posukkan, *Tam.*).
Pottivaudoo (Pottivádu, *Tel.*).
Sanjeevy (Sanjívi, *Tel.*).
Sella (Selladu, *Tel.*).
Shandiyaun (Shandiyán, *Tam.*).
Sharadan (*Tam.*).
Shellan (Shellan, *Tam.*).
Sheppaun (Shéppán, *Tam.*).
Shinnan (*Tam.*).
Sidda (Siddudu, *Tel.*).
Tumbiraun (Tambirán, *Tam.*).
Taunan (Tánan, *Tam.*).
Tooloocaunam (Tulukkánam, *Tam.*).
Toorookkan (Turukkan, *Tam.*).
Vadamalay (Vadamalai, *Tam.*).
Vailan (Vélan, *Tam.*).
Veeran (Víran, *Tam.*).
Vellay (Vellai, *Tam.*).
Vembooly (Vembuli, *Tam.*).
Vowtaun (Vavuttán, *Tam.*).
Yegan (Égan, *Tam.*).
Yellappan (Ellappan, *Tam.*).
Yettiyaun (Ettiyán, *Tam.*).
Yilangauly (Ilangáli, *Tam.*).

(D) WOMEN'S NAMES AMONG THE PARIAH TRIBES.

Carooppy (Karuppi, *Tam.*).
Caundy (Kándi, *Tam*).
Cauttye (Káttáyi, *Tam.*).
Colly (Kolli, *Tam.*).
Irisy (Irisi, *Tam.*).
Osy (Ósi, *Tam.*).
Pappah (Páppá, *Tam.*).
Shelly (Shelli, *Tam.*).
Vanattye (Vanattáyi, *Tam.*).
Veery (Víri, *Tam.*).

(E) MEN'S NAMES AMONG THE HILL TRIBES (THESE HAVING ONLY ONE PROPER NAME).

Ajja (*Can.*).
Audimat (Ádimat, *Can.*).
Aundy (Ándi, *Can.*).
Biliya (*Can.*).
Boddoo (Boddu, *Can.*).
Boolla (Bulla, *Can.*).
Caury (Kári, *Can.*).
Chargy (Chargi, *Can.*).
Chevana (*Can.*).
Chimmamaty (Chimmamati, *Can.*).
Coodikke (Kudikke, *Can.*).
Cooppaty (Kuppati, *Can.*).
Coorooma (Kuruma, *Can.*).
Cotta (Kotta, *Can.*).
Cottapady (Kottapadi, *Can.*).
Gadda (*Can.*).
Hirya (*Can.*).
Hootchy (Huççi, *Can.*).
Kakkamala (*Can.*).
Kakky (Kakki, *Can.*).
Kalla (*Can.*).
Karibaivy Maty (Karibévimati, *Can.*).
Keilaucha (Kailácha, *Can.*).
Kirnaula (Kirnála, *Can.*).
Kitalamaty (Kitalamati, *Can.*).
Madiya (*Can.*).
Mauty (Máti, *Can.*).
Moodigootty (Mudigutti, *Can.*).
Moondy (Mundi, *Tam.*).
Morcha (*Can.*).
Mooramookamooty (Muramukamuti, *Can.*)
Mooroomookka (Murumukka, *Can.*).
Nanja (*Can.*).
Narigootty (Narigutti, *Can.*).
Naurauvoo (Náràvu, *Can.*).
Oochacala (Uchakala, *Can.*).
Paurauvoo (Párávu, *Can.*).
Peiky (Paiki, *Can.*).
Pekkila (*Can.*).
Pokkan (Pokkan, *Tam.*).
Pomman (Pomman, *Tam.*).
Tondoobayya (Tondubayya, *Can.*).
Teccadabannoo (Tekkadabannu, *Can.*).
Wodehotte (Vodehotte, *Can.*).

(F) WOMEN'S NAMES AMONG THE HILL TRIBES.

Barady (Baradi, *Can.*).
Chippautchy (Chippáchi, *Can.*).
Cooppáutchy (Kuppachi, *Can.*).
Hoovy (Húvi, *Can.*).
Javany (Javani, *Can.*).
Mauchy (Máchi, *Can.*).
Maudicoty (Mádikoti, *Can.*).
Maudy (Mádi, *Can.*).
Nanjamma (Nanjamma, *Can.*).
Punney (Panne, *Can.*).

APPENDIX No. XXXV.

ACCOUNT OF THE NATIVE SYSTEM OF ARITHMETIC IN SOUTHERN INDIA.

The Tamul system of arithmetic is defective as regards notation, in which it resembles the Greek and Hebrew notation, having no numerals, but using the alphabetical characters sometimes slightly modified. Thus அ (= a) the first letter of the alphabet is 8; உ (= u) the fifth is 2; க (= ka) the first consonant is 1; and slightly modified as ௬ and ௯, is 6 and 9 respectively. எ another vowel (= e) is 7; ரு (= ru) is 5. ௩ and ௪, or slight modifications of ங (guttural na) and ச (= śa), are 3 and 4 respectively. Systems of notation, which use alphabetical characters instead of figures, have always been found more liable to the copyist's errors than those which have numeral signs markedly distinct from the alphabetical characters. But a graver defect in the Tamul system of notation is that it has no zero (0). 10 instead of being represented by a one in the tens place with a cipher for the units, has a single character of its own ௰ (= ய = y), and twenty-one and similar numbers are written with three figures உ௰க just as if we wrote 201 to represent 21. So a hundred is represented by ௱, but one hundred and one is written with only two figures ௱க = CI, while two hundred and twenty-one and similar numbers require no less than five figures உ௱உ௰க to represent them. Thousands are represented in a similar crude fashion, one hundred thousand (a lakh) being represented by three figures ௰௱௲, i.e., the single character for 10 followed by that for 100, and then that for 10,000. A crore is represented by three characters, ௱௱௲ = 100 × 100 × 1,000. As to such numbers as 957,127,345 it appears doubtful how they should be notated, or whether they could be notated at all.

2. For notating fractional numbers there are certain arbitrary signs (see below) for a few fractions, but there is no system generally applicable, and except in the case of those few, there are no means of notating fractions. This system is manifestly inferior to the system borrowed from the Sanscrit by the Arabs and from them adopted by Western Europe. As the Tamul notation is not well adapted for written calculations, it would be well if it were generally superseded by the Arabic figures and system. A step in this direction has been made by the endeavour to introduce a zero, but it has not been much encouraged.

3. It is probably owing to the anomalous character of the native notation, that for arithmetical computations more reliance is placed upon mental calculation than is common with European nations, and for this purpose lengthy and complex tables are committed to memory in early youth. The most remarkable of these devices is in connection with the fractional system, which, as far as it goes, is used for the business calculations most generally required. These are performed by the use of aliquot parts, as in the English arithmetical rule called "Practice." However the Tamul fractional notation is very defective, as it can express only fractions whose denominator contains no other factors than 2 or 5. Such fractions as seven-thirteenths, to say nothing of such as $\frac{3}{7}$ of $\frac{4}{13}$, cannot be notated in Tamul, and, indeed, can scarcely be made intelligible even in speech.

4. The following table contains the elements of the Tamul fractional notation and numeration :—

Sign.	Name.		Value.
	In Tamul Character.	Transliteration as per Appendix XXIII with the addition of a point under cerebral consonants.	
I. வ௲ ..	முந்திரி	Mundiri	$\frac{1}{320}$, 2 of which =
௰ ..	அரைக்காணி	Araikkáṇi	$\frac{1}{160}$, which is the half of
௨ ..	காணி	Káṇi	$\frac{1}{80}$, 3 of which =
௲ ..	முக்காணி	Mukkáṇi	$\frac{3}{80}$.
சு ..	அரைமா	Araímá	$\frac{1}{40}$, which is the half of
ப ..	மா or ஒருமா	Orumá	$\frac{1}{20}$, 2 of which =
௨ ..	இரண்டுமா	Iraṇḍumá	$\frac{1}{10}$.
௩ ..	மூணுமா	Múṇumá	$\frac{3}{20}$.
௪ ..	நான்குமா	Nángumá	$\frac{1}{5}$.
	N.B.—In all these the denominator contains only multiples of 5 and 2.		
II. வ ..	கால்	Kál	$\frac{1}{4}$, 2 of which =
௨ ..	அரை	Arai	$\frac{1}{2}$.
௩ ..	முக்கால்	Mukkál	$\frac{3}{4}$.
ஒரு ..	அரைக்கால்	Araikkâl	$\frac{1}{8}$ ($\frac{1}{2}$ of kál.) =
பு௨ ..	மாகாணி or வீசம்	Mágáṇi or Vísam	$\frac{1}{16}$, $\frac{1}{2}$ of which =
சு௰ ..	அரைமா அரைக்காணி ..	Araímá araíkkáṇi	$\frac{1}{32}$.
	N.B.—The denominator of these contains only multiples of 2.		

5. Arithmetical questions are asked and answered as follows :—

(1) ஐந்துபேருக்கு நாற்பத்தொன்று—
ஐ எட்டு நாற்பது : நிலுவை - க.
ஐ நான்குமா - க. ஆகச்சரி.
ஈவு. எட்டே நான்குமா.

(2) ௰ருஷ இம் ௩உஒரு இம் பெருக்க—
௰ × ௩ = ௩௰
௰ × ௨ = ரு
௰ × ஒரு = கவ

ஆக ... ௩௰சுவ

(1) Divide 41 among 5 persons—
5 times 8 are 40, remainder 1.
5 times $\frac{1}{5}$ = no remainder.
Ans. $8\frac{1}{5}$.

(2) Multiply $15\frac{3}{4}$ by $3\frac{5}{8}$, i.e., $(3 + \frac{1}{2} + \frac{1}{8})$;
$10 \times 3 = 30$
$10 \times \frac{1}{2} = 5$
$10 \times \frac{1}{8} = 1\frac{1}{4}$

Total ... $36\frac{1}{4}$

ரு × ங = யரு
ரு × ૭ = உ૭
ரு × ஹ = ૭ஹ

ஆக ... யஅஹ
ங × ஜ = உவ
ஜ × ૭ = வஹ
ஜ × ஹ = பஜசுஶ

ஆக ... உ૭ஙி சுஶ
ஆக மொத்தம். ருயஎபஜசுஶ

(3) மணங்கு கஇ எஜஹ ரூபாயாக எ૭ மணங்கு முளகாய்க்கு என்னவிலை ?

இதில் எஜஹ யும் எ૭ மணங்கையும் மாறவேண்டும்.

எ × எ = சயகூ
எ × ஜ = ருவ
எ × ஹ = ஜஹ
எ × ૭ = ஙு૭
ஜ × ૭ = வஹ
૭ × ஹ = பஜ

ஆக மொத்தம். ருயகூபஜ

(4) க - சேர்நெய் வ - ரூபாயாக க - பாரம் ங - மணங்கு என்ன விலை?

இவடத்தில் க - பாரம் ங - மணங்கையும் சேராக்கிக்கொள்ளவேண்டும்.

க - பாரம் = உய - மணங்கு.
க - பாரம் ங - மணங்கு = உங - மணங்கு.
க - மணங்கு = அ - வீசை.
உயங - மணங்கு = ளஅயச வீசை.
க - வீசை = ரு - சேர்.
ளஅயச - வீசை = கூளஉய சேர்.
கூளஉய - க்கும் வ - க்கும் மாறவேண்டும்.

கூள × வ = உளஉயரு
உய × வ = ரு

ஆகையால் அதின்மொத்தவிலை = ரூ ... உளஙய

(5) ஒருபாரம் சர்க்கரை எய ரூபாயாக எ வீசை சர்க்கரை என்னவிலை?

பாரத்துக்கு மணங்கு உய
க - மணங்குக்கு வீசை அ.

ஆகையால் உய - மணங்குக்கு ளசுய - வீசை ஆகிறது.

அதாவது ளசுய - வீசை சர்க்கரையின் விலை எய ரூபாய். ஆகையால் எ - வீசை சர்க்கரையின்விலை.

எய - க்கும் எ - க்கும் மாறவேண்டும்; சாகூய ஆகிறது.

இம்மொத்தத்தை ளசுய ஞாலே பிரிக்கவேண்டும்.

ள × ங = ஙள
சுய × ங = ளஅய

மொத்தம் ... சாஅய போக

நீக்கு ரூபாய் ய
இதற்கு ள × பஜ = சுவ
சுய × பஜ = ஙஜ

மொத்தம் ... ய

ஆகையால் எ - வீசையின் விலை ரூபா ஙபஜ.

$5 \times 3 = 15$
$5 \times \frac{1}{2} = 2\frac{1}{2}$
$5 \times \frac{1}{8} = \frac{5}{8}$

Total ... $18\frac{1}{8}$

$\frac{3}{4} \times 3 = 2\frac{1}{4}$
$\frac{3}{4} \times \frac{1}{2} = (\frac{1}{4} + \frac{1}{8}) = \frac{3}{8}$
$\frac{3}{4} \times \frac{1}{8} = (\frac{1}{16} + \frac{1}{40} + \frac{1}{160}) = \frac{3}{32}$

Total ... $2\frac{23}{32}$
Grand Total ... 57 and $\frac{1}{16} + \frac{1}{32}$, i.e., $57\frac{3}{32}$

(3) Cost of $7\frac{1}{2}$ maunds of chillies, at Rs. $(7 + \frac{3}{4} + \frac{1}{8})$ $7\frac{7}{8}$ per maund :

Here multiply Rs. $(7 + \frac{3}{4} + \frac{1}{8})$ by $7\frac{1}{2}$:

$7 \times 7 = 49$
$7 \times \frac{3}{4} = 5\frac{1}{4}$
$7 \times \frac{1}{8} = \frac{3}{4} + \frac{1}{8}$
$\frac{1}{2} \times 7 = 3\frac{1}{2}$
$\frac{1}{2} \times \frac{3}{4} = \frac{1}{4} + \frac{1}{8}$
$\frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$

Total ... $59\frac{1}{16}$.

(4) Cost of 1 candy and 3 maunds of ghee, at 4 annas per seer ?

Here reduce 1 candy and 3 maunds to seers :

1 Candy = 20 maunds.
∴ 1 Candy and 3 do. = 23 maunds.
1 Maund = 8 viss.
∴ 23 Maunds = 184 do.
1 Viss = 5 seers.
∴ 184 Viss = 920 do.

Now multiply 920 by $\frac{1}{4}$ Rupee :

$900 \times \frac{1}{4} = 225$
$20 \times \frac{1}{4} = 5$

∴ Total cost = Rs. 230

(5) Cost of 7 viss of sugar, at Rs. 70 per candy ?

1 Candy = 20 maunds.
1 Maund = 8 viss.
∴ 20 Maunds or 1 candy = 160 viss.

(i.e.) If 160 viss cost Rs. 70, what is the cost of 7 viss ?

Multiply 70 by 7 which is 490.

Divide 490 by 160—

$100 \times 3 = 300$
$60 \times 3 = 180$

Total ... 480

Remainder ... 10
$100 \times \frac{1}{16} = 6\frac{1}{4}$
$60 \times \frac{1}{16} = 3\frac{3}{4}$

∴ Cost of 7 viss = $3\frac{1}{16}$.

6. It will be seen that these methods are more cumbrous and liable to error than the English rules, and unlike those, are not capable of general application. Facility in the use of them is obtained only by committing to memory lengthy and complex tables, and by great practice. The same amount of time and labour bestowed on the western system of arithmetic would lead to greater proficiency, and that proficiency would be in methods of universal instead of only limited application.

7. The Teloogoo system of native arithmetic has the Sanscrit system of integral notation, but a defective fractional notation corresponding to the Tamul one. The Canarese arithmetic follows the Teloogoo, and the Malayalam one the Tamul.

APPENDIX No. XXXVI.

CORRESPONDENCE OF DIFFERENT SOUTH INDIAN ERAS FOR 60 YEARS.

English year A.D.; begins 1st January.	Name * and number of Tamul Vrihaspaty Cyclic year; begins about 12th April.	Tamil Kaliyoog year; begins about 12th April.	Tamil Salivahana Saca; begins about 12th April.	Malayalam Quilon year; or Collam Andoo; begins about 15th Sept.	Vicramaditya year, called in the north Sumvat; begins within about a month before 12th April.	Official Fusly year; begins 12th July.	Hijrah; begins as shown below.
1840	Saurvary, 34 (Shárvari, *Tam.*)	4941	1762	1016	1896	1250	1256. March 6.
1841	Plavam, 35 (Pilavam, *Tam.*)	4942	1763	1017	1897	1251	1257. Feb. 23.
1842	Soobacrit, 36 (Shubakkiruthu, *Tam.*)	4943	1764	1018	1898	1252	1258. Feb. 13.
1843	Sobhacrit, 37 (Shóbakkiruthu, *Tam.*)	4944	1765	1019	1899	1253	1259. Feb. 1.
1844	Crodhy, 38 (Kuróthi, *Tam.*)	4945	1766	1020	1900	1254	1260. Jan. 22.
1845	Viswauvasoo, 39 (Visuvávasu, *Tam.*)	4946	1767	1021	1901	1255	1261. Jan. 10.
1846	Paraubhavam, 40 (Parábavam, *Tam.*)	4947	1768	1022	1902	1256	1262. Dec. 31. 1263. Dec. 20.
1847	Plavangam, 41 (Pilavangam, *Tam.*)	4948	1769	1023	1903	1257	1264. Dec. 10.
1848	Keelakam, 42 (Kílagam, *Tam.*)	4949	1770	1024	1904	1258	1265. Nov. 28.
1849	Sowmyam, 43 (Shaumiyam, *Tam.*)	4950	1771	1025	1905	1259	1266. Nov. 17.
1850	Sadharanam, 44 (Shátháranam, *Tam.*)	4951	1772	1026	1906	1260	1267. Nov. 6.
1851	Virodhicrit, 45 (Viróthikkiruthu, *Tam.*)	4952	1773	1027	1907	1261	1268. Oct. 27.
1852	Paridhauvy, 46 (Parithábi, *Tam.*)	4953	1774	1028	1908	1262	1269. Oct. 15.
1853	Pramadeecham, 47 (Piramáthíççam, *Tam*).	4954	1775	1029	1909	1263	1270. Oct. 4.
1854	Anandam, 48 (Ánandam, *Tam.*)	4955	1776	1030	1910	1264	1271. Sept. 24.
1855	Rakshasam, 49 (Rádchatham, *Tam.*)	4956	1777	1031	1911	1265	1272. Sept. 14.
1856	Nalam, 50 (Nalam, *Tam.*)	4957	1778	1032	1912	1266	1273. Sept. 1.
1857	Pingalam, 51 (Pingalam, *Tam.*)	4958	1779	1033	1913	1267	1274. Aug. 22.
1858	Kalayookty, 52 (Kálayutti, *Tam.*)	4959	1780	1034	1914	1268	1275. Aug. 11.
1859	Siddharty, 53 (Shittártti, *Tam.*)	4960	1781	1035	1915	1269	1276. Aug. 1.
1860	Rowdry, 54 (Rauttiri, *Tam.*)	4961	1782	1036	1916	1270	1277. July 20.
1861	Doonmaty, 55 (Tunmathi, *Tam.*)	4962	1783	1037	1917	1271	1278. July 10.
1862	Doondoobhy, 56 (Tundubi, *Tam.*)	4963	1784	1038	1918	1272	1279. June 29.
1863	Roodrotkary, 57 (Ruttirórkkári, *Tam.*)	4964	1785	1039	1919	1273	1280. June 18.
1864	Raktakshy, 58 (Rattádchi, *Tam.*)	4965	1786	1040	1920	1274	1281. June 6.
1865	Crodhanam, 59 (Kuróthanam, *Tam.*)	4966	1787	1041	1921	1275	1282. May 27.
1866	Akshayam, 60 (Adchayam, *Tam.*)	4967	1788	1042	1922	1276	1283. May 16.
1867	Prabhavam, 1 (Pirabavam, *Tam.*)	4968	1789	1043	1923	1277	1284. May 5.
1868	Vibhavam, 2 (Vibavam, *Tam.*)	4969	1790	1044	1924	1278	1285. April 24.
1869	Shooclam, 3 (Shukkilam, *Tam.*)	4970	1791	1045	1925	1279	1286. April 13.
1870	Promodootam, 4 (Piramóthútham, *Tam.*)	4971	1792	1046	1926	1280	1287. April 3.
1871	Prajotpatty, 5 (Pirasórppatti, *Tam.*)	4972	1793	1047	1927	1281	1288. Mar. 23.
1872	Angeerasam, 6 (Ángírasam, *Tam.*)	4973	1794	1048	1928	1282	1289. Mar. 11.
1873	Shreemookham, 7 (Shirímugam, *Tam.*)	4974	1795	1049	1929	1283	1290. Mar. 1.
1874	Bhavam, 8 (Pavam, *Tam.*)	4975	1796	1050	1930	1284	1291. Feb. 18.
1875	Yoovam, 9 (Yuvam, *Tam.*)	4976	1797	1051	1931	1285	1292. Feb. 6.
1876	Dhautoo, 10 (Táthu, *Tam.*)	4977	1798	1052	1932	1286	1293. Jan. 28.
1877	Eeshwaram, 11 (Íççuram, *Tam.*)	4978	1799	1053	1933	1287	1294. Jan. 16.
1878	Vegoothaunyam, 12 (Veguthániyam, *Tam.*)	4979	1800	1054	1934	1288	1295. Jan. 5.
1879	Pramauthy, 13 (Piramáthi, *Tam.*)	4980	1801	1055	1935	1289	1296. Dec. 26. 1297. Dec. 15.
1880	Vicramam, 14 (Vikkiramam, *Tam.*)	4981	1802	1056	1936	1290	1298. Dec. 4.
1881	Vishoo, 15 (Visu, *Tam.*)	4982	1803	1057	1937	1291	1299. Nov. 23.
1882	Chittrabaun, 16 (Shittirappánu, *Tam.*)	4983	1804	1058	1938	1292	1300. Nov. 12.
1883	Soobhaun, 17 (Shubánu, *Tam.*)	4984	1805	1059	1939	1293	1301. Nov. 2.
1884	Tauranam, 18 (Táranam, *Tam.*)	4985	1806	1060	1940	1294	1302. Oct. 21.
1885	Paurtivam, 19 (Párttivam, *Tam.*)	4986	1807	1061	1941	1295	1303. Oct. 10.
1886	Vyayam, 20 (Viyam, *Tam.*)	4987	1808	1062	1942	1296	1304. Sept. 30.
1887	Sarwajit, 21 (Sharuvasittu, *Tam.*)	4988	1809	1063	1943	1297	1305. Sept. 19.
1888	Sarwadhary, 22 (Sharuvathári, *Tam.*)	4989	1810	1064	1944	1298	1306. Sept. 7.
1889	Virodhy, 23 (Viróthi, *Tam.*)	4990	1811	1065	1945	1299	1307. Aug. 28.
1890	Vicrit, 24 (Vigiruthi, *Tam.*)	4991	1812	1066	1946	1300	1308. Aug. 17.
1891	Kharam, 25 (Karam, *Tam.*)	4992	1813	1067	1947	1301	1309. Aug. 7.
1892	Nandanam, 26 (Nandanam, *Tam.*)	4993	1814	1068	1948	1302	1310. July 26.
1893	Vijayam, 27 (Visayam, *Tam.*)	4994	1815	1069	1949	1303	1311. July 15.
1894	Jayam, 28 (Shayam, *Tam.*)	4995	1816	1070	1950	1304	1312. July 5.
1895	Manmadham, 29 (Manmatham, *Tam.*)	4996	1817	1071	1951	1305	1313. June 24.
1896	Doonmookhy, 30 (Tunmugi, *Tam.*)	4997	1818	1072	1952	1306	1314. June 12.
1897	Hevilamby, 31 (Évilambi, *Tam.*)	4998	1819	1073	1953	1307	1315. June 2.
1898	Vilamby, 32 (Vilambi, *Tam.*)	4999	1820	1074	1954	1308	1316. May 22.
1899	Vicaury, 33 (Vigári, *Tam.*)	5000	1821	1075	1955	1309	1317. May 12.
1900	Saurvary, 34 (Shárvari, *Tam.*)	5001	1822	1076	1956	1310	1318. May 1.

* This is the correct Tamul version, and shown here for the sake of brevity. In practice however the Tamulians leave the Sanscrit form uninflected, and make a compound adding 'varoosham' or year in each case.

APPENDIX No. XXXVII.

SUBJECTS OF ANCIENT SCULPTURES.

(1) SUBJECTS OF BOODDHIST SCULPTURES.

Booddhist Triad.

Booddha.
Dharma (the law).
Sanga (the congregation).

Pancha Dhyaunibooddhas (five Booddhas of meditation).

Veirochana	In different positions and with different symbols.
Akshobhya	
Ratnasambhava	
Amitaubha	
Amogha Siddha	

Pancha Dhyaunibodhisatwas (five incorporeal sons of the last).

Samantabhadra	In different positions and with different symbols.
Vajrapauny	
Ratnapauny	
Padmapauny	
Vishwapauny	

Pancha Dhyauniboddha Shakties (five female energies accompanying the first five).

Vajradhateswaree	These female figures are all in different attitudes, and have different symbols.
Lochanah	
Maumookhy	
Paundarah	
Tarah	

Four principal scenes in Shakya's life.

Birth.—Mayadevy (the mother of Booddha) standing under a Saul tree.

Asceticism.—Booddha seated under a Peepul or Bodhy or Bo tree.

Teaching.—Booddha either seated or standing.

Death.—Booddha lying at full length.

Four predictive signs.

Shakya in a chariot meets an old man.
Ditto ditto ditto a sick man.
Shakya in a chariot meets a dead man.
Ditto ditto ditto a monk.

(2) SUBJECTS OF JAIN SCULPTURES.

The twenty-four hierarchs or sanctified teachers or Teertankaras or Jinas or Arhats, with their symbols.

Audinauta	Bull.
Ajitanauta	Elephant.
Shambhoonauta	Horse.
Abhinandanauta	Monkey.
Soomatinauta	Chacwa (Red goose).
Soopadmanauta	Lotus.
Sooparshwanauta	Swastica.
Chandraprabhah	Crescent.
Pooshpadanta	Crocodile.
Sheetalanauta	Tree, or Flower.
Shreehansanauta	Rhinoceros.
Vausoopoojya	Buffalo.
Vimalanauta	Boar.
Anantanauta	Porcupine.
Dharmanauta	Thunderbolt.
Shantinauta	Antelope.
Coontoonauta	Goat.
Aranauta	Fish.
Mallinauta	Pinnacle.
Moonisoovrata	Tortoise.
Niminauta	Lotus.
Neminauta	Shell.
Parshwanauta	Snake.
Vardhamauna, or Mahaveera	Lion.

(3) SUBJECTS OF BRAHMINICAL SCULPTURES.

Brahminical Triad.

Brahma. | Vishnoo. | Shiva.

Personages connected with the Triad.

	Brahma.	*Vishnoo.*	*Shiva.*
Wives	Saraswatee	Lutchmee	Parvaty.
Vehicles	Hansa (goose)	Garooda (eagle)	Nandy (bull).
Sons	Vishwacarmah		Scanda.
	Bhrigoo		Bheirava.
	Naurada		Veerabhadra.
			Ganesh.
Incarnations	Daksha	Matsya	Roodras.
	10 Brahmaudicas ...	Coorma.	
	7 Rishies	Varauha.	
		Narasimha.	
		Vaumana.	
		Parashoorama.	
		Ramachendra.	
		Krishna.	
		Booddha.	
		Calky Avatar.	

APPENDIX No. XXXVIII.

CONJECTURAL AND APPROXIMATE DATES ASSIGNED TO CERTAIN TEMPLES, &c., IN THE PRESIDENCY ARRANGED CHRONOLOGICALLY.

Locality.	District.	Nature of the Building, &c.	Date, Anno Domini.
Amravatty (Amarávathi, *Tam.* Amaravati*).	Kistna ..	Booddhist Tope ..	350.
Seven Pagodas (Magábalippuram, *Tam.*).	Chingleput ..	Dravidian Caves and Raths.	650 to 700.
Oondavully (Undavalli, *Tel.*)	Kistna ..	Chalookyan Cave-temple	700.
Caroogoomullay (Karugumalai, *Tam.*) ..	Tinnevelly ..	Ganesh rock-cut temple.	725 to 755.
Chidambaram* (Shithambaram, *Tam.*) ..	South Arcot ..	Two inner enclosures of the great temple.	1000.
Rameswaram (Rámésuvaram, *Tam.* Rámésvaram*).	Madura ..	Small Vimana	1100.
Tanjore* (Tanjávúr, *Tam.*)	Tanjore ..	Temple	1300, or earlier.
Vellore* (Vélúr, *Tam.*)	North Arcot ..	Temple	1350.
Chidambaram* (Shithambaram, *Tam.*) ..	South Arcot ..	Temple of Parvaty, the great gopooras, and the second enclosure.	1400.
Yenoor (Énúru, *Can.*)	South Canara ..	Colossal Jeina statue ..	Before 1432.
Caurcal (Kárkala, *Can.*)	South Canara ..	Colossal Jeina statue ..	1432.
Moodbidry (Múdabidri, *Can.*)	South Canara ..	Jeina temples	Commenced about 1500.
Conjeeveram* (Kánjíppuram, *Tam.*) ..	Chingleput ..	Temple	1500.
Madura* (Mathurai, *Tam.*)	Madura ..	Vimana of the great temple.	1520.
Humpy (Hampi,* *Tel.*)	Bellary ..	Most of the principal buildings.	1525.
		Vittalasawmy—or Vittoba—mantapam.	1530.
Tadpatry (Tádipatri, *Tel.* Tadpatri*) ..	Anantapore ..	Two great gopooras ..	1540.
Rameswaram (Rámésuvaram, *Tam.* Rámésvaram*).	Madura ..	Temple	1600.
Shreerungam (Shirírangam, *Tam.* Srírangam*).	Trichinopoly ..	Temple of Jambookeswara.	1600.
Combaconam (Kumbagonám, *Tam.* Kumbakónam*).	Tanjore ..	Temple	1600.
Madura* (Mathurai, *Tam.*)	Madura ..	Trimal Naick's mantapam, the palace, the unfinished gopoora, and parts of the temple.	The mantapam, 1623 to 1645. The others between 1623 and 1659.
Rameswaram (Rámésuvaram, *Tam.* Rámésvaram*).	Madura ..	Sculptured corridors ..	Contemporary with mantapam last-named.
Ahobalamu (Ahóbalam, *Tel.*)	Cuddapah ..	Sculptured mantapam.	1630.
Chidambaram* (Shithambaram, *Tam.*) ..	South Arcot	1000-pillared mantapam.	1650.
		Ruined mantapam with sculptured pillars.	1700.
Madura* (Mathurai, *Tam.*)	Madura ..	Calyauna mantapam in the great temple.	1707.
Peroor (Pérúr, *Tam.* Perúr*)	Coimbatore ..	Sculptured mantapam.	1750.
Shreerungam (Shirírangam, *Tam.* Srírangam*).	Trichinopoly ..	Temple	1750.
Madura* (Mathurai, *Tam.*)	Madura ..	"Tatta Sooddhy" ..	1770.
Tanjore* (Tanjávúr, *Tam.*)	Tanjore ..	Palace	1675 to 1800.

APPENDIX No. XXXIX.

LISTS OF SOUTH INDIAN RULERS, WHOSE DATES OR SUCCESSION CAN BE AT ALL APPROXIMATELY ASCERTAINED, WITH GENEALOGIES OF THE MORE IMPORTANT.

(a) LISTS OF RULERS.

(1) DYNASTY OF PANDYA OR MADURA.

(Mysore Rulers of Pandya.)	A.D.
Cumpana Oodaiyar; Yembana Oodaiyar, his son; Pracausha Oodaiyar, brother-in-law of Yembana	1372—1404
Laccana Naick and Mattanan Naick, both of Madura	1404—1451
Soondra Tol Maha Vilivaunauthy Royer; Caulaiyaur Somanaur; Anjauda Permaul; Moottarasa Trimal Maha Vilivaunauthy Royer	1451—1499
Narasa Naick	1499—1500
Tenna Naick	1500—1515
Narasa Pillay	1515—1519
Cooroo Cooroo Timmappa Naick	1519—1524
Cuttiyama Caumayya Naick	1524—1526
Chinnappa Naick	1526—1530
Ayyacauray Veyyappa Naick	1530—1535
Vishwanautha Naick	1535—1544
Varadappa Naick	1544—1545
Doombitchy Naick	1545—1546
Vishwanautha Naick	1546—1547
Vittala Rajah perhaps the same as Rama Rajah of Vijianugger, whose name occurs in an inscription round the garbha griha of the Permaul pagoda at Madura	1547—1558

(Naick Rulers of Pandya.)	A.D.
Vishwanautha Naick I builds the fort of Madura, with 72 bastions, and appoints one chief, or poligar, to be guardian of each, and descendants of these chiefs still remain	1559—1563
Coomaura Krishnappa conquers Candy in Ceylon	1563—1573
Krishnappa or Periya Veerappa and Vishwanautha II	1573—1595
Lingayya or Coomaura Krishnappa and Vishvappa or Vishwanautha III	1595—1602
Moottoo Krishnappa, in whose reign Robert de Nobilibus preached at Madura	1602—1609
Mootoo Veerappa	1609—1623
Trimal Naick	1623—1659
Moottoo Alacaudry or Moottoo Veerappa, Illegitimate son of Trimal	1659—1660
Chokkanautha or Chokkappa or Chokkalingam, married Mungammaul	1660—1682
Runga Krishna Moottoo Veerappa	1682—1689
Queen Mungammaul regent	1689—1704
Vijaya Runga Chokkanautha	1704—1731
Queen Meenautchee	1731—1736

(2) CHERA KINGS IN MALABAR, &c.

Veera Roya Chacravurty	
Govinda Roya I	
Krishna Roya	
Caula Vallabha Roya	
Govinda Roya II	82
Chatoorbhooja Canara Deva Chacravurty	
Shree Vicrama Deva Chacravurty	178—188
Congany Vurmah Dharma Mahadhiroya I	188—239
Madhava Mahadhiroya I	239
Hary Vurmah	247—288
Vishnoogopa Vurmah	
Madhava Vurmah II	425
Krishna Vurmah	
Dindicara Roya or Harischandra Deva Roya.	
Congany Mahadhiroya II	425—478
Dhroovanity Roya	478—513
Mooshcara Roya or Brahmahary Roya	
Trivicrama Roya	
Bhoovicrama Roya	
Congany Mahadhiroya III	
Rajah Govinda Roya or Nundy Vurmah	
Shivarama Roya or Shiva Maharoya I	668
Prithivy Congany or Shiva Maharoya II	722—777
Rajah Malla Deva Roya I	
Ganda Deva Maharoya	
Satya Vaukya Roya	857
Goonauloottama Roya	
Rajah Malla Deva Roya II	878—894

(3) WESTERN CHALOOKYA KINGS.

Jayasimha I	
Booddhavurmah	
Vijayarajah or Vijayavurmah	472
Ranarauga	
Poolikeshy Vallabha	567
Keerttivurmah I	567
Mungaleesha	567
Satyashraya I	610
Jayasimha II	
Nagavardhana	
Adityavurmah	
Vijayabhattauraca	
Vicramauditya I	670—680
Amberah	
Vinayauditya Yooddhamalla I	680—696
Vijayauditya	696—733
Vicramauditya II	733—747
Keerttivurmah II	747—757
Bheema I	
Keerttivurmah III	
Teila I	
Vicramauditya III	
Bheema II	
Ayyana I	
Vicramauditya IV	973—997
Teila II	
Satyaushraya II	997—1008
Dasavurmah	
Vibhoovicrama	1008—1018
Ayyana II	
Accaudevy	1022—1047
Jayasimha III	
Someshwara I	1068
Someshwara II	1068—1075
Vicramauditya VI	1075—1126
Jayasimha IV	
Jayacarna	
Someshwara III	1126—1138
Meilalaudevy	
Jagadecamalla	1138—1150
Teila III	1150—1168
Someshwara IV	1182—1189

(4) Cadambas.

(Cadambas of Banawausy and Haungal.)

	A.D.
Jayanta Trilochana, or Trinetra Cadamba.	150
Madookeshwara	
Mallinautha	
Chandra Vurmah	
Chandra Vurmah	
Mayoora Vurmah I	
Krishna Vurmah	400
Naga Vurmah I	
Vishnoo Vurmah	
Mriga Vurmah	
Satya Vurmah	
Vijaya Vurmah	
Jaya Vurmah I	
Naga Vurmah II	
Shaunty Vurmah	
Keertty Vurmah I	
Auditya Vurmah	
Chattaya, Chatta, or Chattooga	
Jaya Vurmah II	
Mauvoolideva	
Teila I or Teilapa I	
Keertty Vurmah II	1068—1077
Shaunty Vurmah II	1088
Chokideva	
Vicrama	
Teila II or Teilapa II	1099—1124
Mayoora Vurmah II	1131
Mallicarjoona I	1132—1144
Teilama	
Keerttideva II	
Camadeva	1181—1204

(Cadambas of Goa.)

	A.D.
Goohalla	
Shastadeva I or Chatta	1007
Jayakeshy I	1052
Vijayauditya I	
Jayakeshy II	1125
Permady or Shikashitta; Vijayauditya II or Vishnoochitta	1147—1175
Jayakeshy III	1175—1188
Tribhoovanamalla	
Shastadeva II	1246—1250

(5) Hoysala Ballaula Kings.

Sala Hoysala	984—1043
Vinayauditya	1043—1076
Yereyanga or Yereganga	1073—1114
Ballaula I	1103
Vishnoovardhana or Bitty Deva	1117—1137
Oodayauditya	
Narasimha I also called Veera Narasimha or Vijaya Narasimha	1142—1191
Ballaula II or Veera Ballaula	1192—1211
Narasimha II or Veera Narasimha	1223
Someshwara	1252
Narasimha III	1254—1286
Ballaula III or Veera Ballauladeva	1286—1310

(6) Yadavas of Devagiry (Dowlatabad) with the device of a Garooda.

Singhana I	
Malloogy	
Bhillama	1187—1191
Jeitoogy I	1191—1209
Singhana II	1209—1247
Jeitoogy II	
Kandhara, Kanhara, or Krishna	1247—1260
Mahadeva	1260—1271
Ramchendra or Ramadeva	1271—1309
Shankara	1309—1312
Bheema	
Haripala	1318

(7) Bahminy Dynasty.

Allah ood deen Hassan Shah Gango Bahminy, servant of a Brahmin in M. Toghlak's court.	1347
Mahomed Shah I	1358
Moojauhid Shah	1375
Davood Shah	1378
Mahmood Shah I	1378
Ghiyas ood deen	1397
Shums ood deen Shah	1397
Firoze Shah	1397
Ahmed Shah Wally Khan Khanaun	1422
Allah ood deen Shah II	1435
Hoomayoon	1457
Nizam Shah	1461
Mahomed Shah II	1463
Mahmood II	1482
Ahmed Shah II	1518
Allah ood deen Shah III	1520
Wally Oollah	1522
Calaum Oollah	1525

(8) Rajahs of Vijianugger.

(Harihar Dynasty.)

Bookka	
Sangama	
Harihara I	
Bookka or Rajendra	1350—1379
Harihara II	1379—1401
Deva Roya I	1406—1412
Vijaya Bhoopaty	1418
Deva Roya II or Veeradeva	1422—1447
Mallicaurjoona	1459
Viroopauesha	1470—1473
Proudhadeva	1476

(Narasimha Dynasty.)

Timma	
Eeshwara	
Narasa or Narasimha	1509
Veera Narasimha	1509
Krishnadeva Roya	1509—1530
Atchyoota	1530—1542
Sadashiva	
Rama Rajah	1535—1564

(Dynasty of Rama Raja.)

Trimal Shree Runga	1564—1585
Trimaladeva	1585
Vencatapaty	1585—1614
Shree Runga II	1619
Rama	1620—1622
Shree Runga II	1623
Vencatappa	1623
Rama	1629
Vencata	1636
Shree Runga III	1643—1665
Shree Runga IV	1665—1678
Vencatapaty	1678—1680
Shree Runga	1692
Vencata	1706
Shree Runga	1716
Mahadeva	1724
Shree Runga	1729
Vencata	1732
Rama	(?) 1739
Vencatapaty	1744
Vencatapaty	1791—1793

(9) Five Mahomedan Dynasties of 15th and 16th Centuries.

(Adil Shahy Dynasty of Beejapore.)

Abool Mozuffer Yoosuf Adil Shah, son of Aghah Moorad or Amoorath II of Aratolia	1489
Ismail Adil Shah	1511
Maloo Adil Shah	1534
Ibrahim Adil Shah I	1535
Ally Adil Shah	1557

	A.D.
Ibrahim Adil Shah II	1579
Mahomed Adil Shah	1626
Ally Adil Shah II	1656
Sultan Secunder	1659—1686

(Nizam Shahy Dynasty of Ahmednugger.)

Ahmed Nizam Shah	1490
Boorhaun Nizam Shah I	1508
Houssain Nizam Shah	1553
Moortazah Nizam Shah I	1565
Meeraun Houssain Nizam Shah	1587
Ismail Nizam Shah	1589
Boorhaun Nizam Shah II	1590
Ibrahim Nizam Shah	1594
Ahmed Ibn Shah Tauhir	1594
Bahaudoor Nizam Shah	1595
Moortazah Nizam Shah	1598
Malik Ambar	1607

(Cootb Shahy Dynasty of Golcondah.)

	A.D.
Sultan Coolee Cootb Shah	1512
Jamsheed Coolee Cootb Shah	1543
Ibrahim Cootb Shah	1550
Mahomed Coolee Cootb Shah	1581
Abdoollah Cootb Shah	1611
Aboo Hassan	1672

(Imaud Shahy Dynasty of Berar, reigning at Ellichpore.)

Fathoollah Imaud Shah Bahmanee	1484
Ala od deen Imaud Shah	1504
Darya Imaud Shah	1528
Boorhan Imaud Shah	1560
Toofail Khan	1568

(Barid Shahy Dynasty of Beedar.)

Casim Barid I	1492
Ameer Barid I	1504
Ally Barid Shah	1549
Ibrahim Barid Shah	1562
Casim Barid Shah II	1569
Mirza Ally Barid Shah deposed by the next	1572
Ameer Barid Shah II	1609

(10) Nizams of the Deccan.

Meer Cumr ood deen Nizam ool moolk Asaf Jah	1713—1748
Meer Ahmed Khan Nazir Jung, killed by the Nawab of Cuddapah, 1748—Dec. 5th	1750
Hidayat Moohy ood deen Khan Mozuffer Jung, Dec. 5th, 1750, to Jan. 30th.	1751
Salaubut Jung deposed in 1761 by Nizam Ally and murdered, 26th Jan.	1763
Nizam Ally Asaf Jah i Saunee died at Hyderabad, Aug.	1800
Secunder Shah died ... May	1829
Talmait Ally Khan Bahaudur Meer Farkhoondah Ally Khan Bahaudur Nazir ood dowlah, died May	1857
Afzool ood dowlah, died	1869
Meer Mahboob Ally Khan Bahaudur Fath Jung Nizam ood dowlah, Nizam ool moolk, now reigning.	

(11) Nawabs of the Carnatic.

Zoolfacar Khan	1692—1703
Davood Khan made Nawab of Arcot by Zoolfacar Khan	1703—1710
Saadat oollah Khan, a Nawab of Arab extraction (on his tomb is inscribed A.H. 1146), first took the title of Nawab of the Carnatic	1710—1732
Ally Dost Khan, nephew of Saadat oollah, killed by the Mahrattas at the Daumalcherry Pass, 20th May	1740
Safdar Ally, son of Ally Dost Khan, murdered 2nd Oct.	1742
Mahomed Syed, alias Saadat oollah Khan.	1742—1744
Mahomed Anwar ood deen, killed in battle against Chanda Sahib and Mozuffer Jung, at Amboor, 30 miles south of Daumalcherry	1744—1749
Mahomed Ally, styled Wallajah, second son of Anwar ood deen, died, aged 78, on 13th Oct.	1795
Oomdat ool oomrah, Pillar of Nobles, son of Mahomed Ally, died 15th July	1801
Azeem ood dowlah, son of Ameer ool Oomrah, delivers over the government of the Carnatic to the English by treaty, 19th July	1819
Azeem Jah Bahaudur, son of Azeem ood dowlah	1819—1825
Azeem Jah Bahaudur { Regent	1825—1842
Azeem Jah Bahaudur { Prince of Arcot	1867—1874
Ghoolam Mahomed Ghouse Khan died without issue	1842—1855
Zaheer ood dowlah Bahaudur, G.C.S.I., Prince of Arcot	1874—1879
Intilzaum ool moolk Bahaudur, Prince of Arcot	1879

(12) Mysore Rajahs.

Vijaya, a Cshatriya of the Yadava tribe, native of Dwarka in Cattywar	1399—1423
Heere Bettauda Chama Rajah	1423—1458
Timma Rajah	1458—1478
Chama Rajah, Aur-beral or 6-fingered	1478—1513
Bettauda Chama Rajah	1513—1552
Appana Timma	1552—1571
Heere Chama Rajah, Bol, or the Bald	1571—1576
Bettauda Oodaiyar	1576—1578
Rajah Oodaiyar	1578—1617
Chama Rajah	1617—1634
Immady Rajah, or second Rajah	1637—1638
Canteerava Narasa Rajah	1638—1659
Kempa Deva Rajah, known as Dodda or Great	1659—1672
Chikka Deva	1672—1704
Canteerava Rajah, known as Mookarasoo or Dumb King	1704—1714
Dodda Krishna Rajah	1714—1731
Chema Rajah, deposed by his cousin the Dalavai Deva Raja	1731—1733
Chikka, or Immady Krishna Rajah	1734—1766
Chama Rajah. Chama Rajah, son of Devarajah. } nominal rulers	1766—1796
Usurpers { Hyder Ally Khan	1761—1782
Usurpers { Tippoo Sultan	1782—1799
Krishna Rajah Oodaiyar made Rajah by the English	1799—1868
Chama Rajendra Oodaiyar	1868—

(b) GENEALOGICAL TABLES OF THE PRINCIPAL DYNASTIES.

(1) Hyderabad, Nizams of.

1. Nizam ool moolk
(1713-1748).

His real name was Meer Cumr ood deen Khan. His other titles were Nizam ool moolk Asaf Jah and Fath Jung Nizam ood dowlah. He is also known by one of his earlier titles, Chin Kalich Khan. He rose to distinction under Aurungzeeb, and was Vizier to Mahomed Shah. He was recognized as Soobahdar of the Deccan in 1713, and became independent on the downfall of the Moghul dynasty. Died 1748.

Ghazee ood deen Khan. Remained absent from the Deccan till 1752, when, attempting to wrest the Soobahdarry from Salaubut Jung, he was poisoned.

2. Nasir Jung (1748–1750). Killed in 1750 by the Nawab of Cuddapah.

3. Moozuffer Jung, Hidayat Moohy ood deen. (Dec. 5th, 1750 to Jan. 30th, 1751). Grandson of Nizam ool moolk by a daughter. Allied himself with Chanda Sahib and fought against Nasir Jung. He was killed 1750, leaving an infant son, who never came to power.

4. Salaubut Jung (1750–1761). Deposed in 1761 by Nizam Ally and murdered January 26th, 1763.

5. Nizam Ally Khan, Asaf Jahy Saunee (1761–1803).

6. Secunder Shah (1803–1829).

7. Farcoondah Ally Khan, Nazir ood dowlah (1829–1857). Sir Salar Jung was made his Dewan in 1853.

8. Afzool ood dowlah (1857–1869). Sir Salar Jang was his Dewan.

9. Meer Mahboob Ally Khan Bahaudoor Fath Jung, Nizam ood dowlah, Nizam ool moolk (1869), the present Nizam. Sir Salar Jung died 1882.

Basaulat Jung.

(2) Mahrattas. The Chief Dynasty.

Babajee Bhonslay.

Headman of three villages near Poona.

- Mallojee. Entered the service of a chief named Lookhjee Jaudoo Row, who held office under Nizam Shah, and rose to power.
  - Shahjee. Mallojee married his son to Jaudoo Row's daughter, Jeejee Bye. Shahjee rose to eminence as a commander, first under Nizam Shah and then under Ibrahim Adil Shah of Beejapore, under whom he governed all the southern parts of the country which had been conquered. He married also Tooka Bye Mohity. He was born 1594 A.D.
    - (By Jeejee Bye) Samboojee. Killed in battle.
    - (By Jeejee Bye) Sivajee. The first real sovereign. By 1673 he ruled the whole of the Concana. He seized Kurnool, Jinjee, and Vellore in 1677; and opposed his brother Yeckojee at Tanjore. Peace was made, 1678. He died 1680.
      - Samboo or Samboojee (1680–1689). Lost many of his father's possessions. Was put to death by Aurungzeeb in 1689.
        - Sauhoo, or Sahoojee, (1700–1749). A prisoner in the hands of Aurungzeeb from 1689 to 1700. Sahoo seized Sattaura from his cousin Samboo in 1708. The Peshwa usurped much of the power. Died 1749.
          - Rama Rajah (adopted.)
            - Sauhoo.
              - Prataup Sing.
              - Rama Rajah.
              - Shahjee.
        - Samboojee.
      - Rama or Rajah Ram I (Regent, 1689–1700). He ruled for his nephew. Reorganized the Mahratta predatory bands and overran the Deccan. On his death his son seized on Sattaura.
        - Sivajee.
          - Rama or Rajah Ram II, (1749). He was acknowledged by the Peshwa, Baulajee Row, on Sauhoo's death, but had no real power, and was for the most part kept in confinement.
        - Samboojee. Ejected from Sattaura by Sauhoo, Samboo seized on Kolhapore. He was aided by his mother Tara Bye. Died without issue.
          - (adopted) Sivajee.
            - Samboojee Killed. No issue.
            - Shahjee.
              - Sivajee.
                - (adopted) Rajah Ram.
                  - (adopted) Narrain Row, alias Sivajee.
              - Sauhoo (no issue).
    - (By Tooka Bye) Yeckojee. Called also Vencajee. See the next genealogy.
    - (Illegitimate) Santajee.
- Vinaujee.

(3) MAHRATTAS. THE DYNASTY OF TANJORE.

Babajee Bhonslay.
(See above).

- Mallojee. (See above).
  - Shahjee (See above.)
    - (By his wife Jeejee Bye)
      - Samboojee (See above.)
      - Sivajee. (See above.)
    - (By his wife Tooka Bye Mohity) Yeckojee or Vencajee. Seized Tanjore about 1674-75 from the Naick governor. Was threatened by Sivajee in 1677, but made peace with him in 1678. He was frequently at war with his neighbours.
      - Shahjee (1684–1711).
      - Sarfojee, 1711–1729, (no issue).
      - Tookajee. (1729–1736).
        - Bawah Sahib, married Soojauna Bye. (no issue.)
        - Seiyajee. (no issue.)
        - Prataupsing, illegitimate; ascended musnud 1740; died 1763.
          - Toolzajee, ascended musnud 1763; dethroned 1773; restored 1776; died 1787.
            - Sarbhojee, adopted son; passed over in favor of Amarsing; installed 1798; resigned country to English 1802; died 1832. married Ahilya Bye alias Auvoo Sahiba.
              - Sivajee, succeeded 1832; died 1855, when raj became extinct. married (i) Seidambah Bye Sahiba, (ii) Caumautchiambah Bye Sahiba, (iii) Padmambah Bye Sahiba, and seventeen others.
                - Sowbhaugyavaty Rajasa Bye Amanee Rajah Sahiba. Sookharam Row Sahib
                - Sowbhaugyavaty Vijaya Mohanna Moocta Bye Amanee Rajah Sahiba, late Princess of Tanjore. Married her deceased sister's widower in 1860. married Sookharam Row Sahib.
              - Sakhwar Bye Amanee Rajah Sahiba.
                - Prataupparoodra Mannay Row Ingle Sahib
              - Bayammah Bye Amanee Rajah Sahiba.
                - Caumautchiambah Bye Sahiba. married Sivajee.
          - Amarsing, by sword-wife'; ascended musnud 1787; dethroned 1798; died 1802.
            - Prataupsing.
              - Yeckojee.
    - (illegitimate) Santajee.
- Vinajee. (See above.)

Rajaram Sahib, the putative adopted son of Caumautchee Bye and other ranees.

(4) MYSORE RAJAHS.

The account given by tradition of the origin of the family of the Rajahs of Mysore is that two young brothers of the Yadava tribe, dependents at the court of the Vijianugger kings, having left that court on an adventurous expedition to the south, rescued from an enforced marriage with the Chief of Cauroogahully in Mysore, whom they killed, the daughter of the Chief of Hadanaud. The elder of them, by name Vijaya, at once married the rescued girl and thus became master or Oodaiyar of Hadanaud and Cauroogahully. The following table contains the best information available :—

- Vijaya (1399–1423).
  - Heere Bettauda Chama Rajah (1423–1458).
    - Timma Rajah (1458–1478).
      - Aurberal or 'Six-fingered' Chama Rajah (1478–1513).

(No records preserved regarding these reigns.)

        - Bettauda Chama Rajah (1513–1552). Partitioned his dominions amongst his sons.
- Krishna.

Appana Timma,
(1552-1571).
Received Hemanhully in the partition.
Died without male issue.

Krishna.
Received Kembala in the partition. Died without male issue.

Heere Chama Rajah,
called Bole the 'bald'
(1571-1576).
Received Mysore in the partition. It is stated that after this partition the village of Pooragerey received the new name of Mahisha oor. Mahisha was the name of an asoora or demon whom Doorga slew; oor is "town." Mahisha oor is Mysore. After the fall of Vijianugger in 1564 the Mysore princes evaded payment of tribute and Chama Rajah became virtually independent.

(Relationship not stated. These brothers are called "cousins" of Heere Chama Rajah.)

Bettauda Oodaiyar
(1576-1578).
Deposed in favor of his brother.

Rajah Oodaiyar
(1578-1617).
Acquired by conquest large tracts of country, became the most powerful prince in Mysore and finally ejected the Vijianugger Viceroy from Seringapatam, which he occupied (1609 A.D).

Mooppinadeva,
eldest son.

Canteerva Narasa Rajah
(1638—1659).
Repulsed a Mahomedan invasion, and still further extended the conquests of the family. Established a mint, the Canteroy coins of which are called by his name. Died without issue.

Five other sons.
All died before their father.

Narasa Rajah.
Died before his father.

Chama Rajah
(1617-1637).
Succeeded on death of Rajah Oodaiyar, Immady Rajah being posthumously born. Extended the conquests of the family.

Immady Rajah,
(1637-1638).
Son of Rajah Oodaiyar's second wife. Born after his father's death. Succeeded at age of 20. Was murdered after $1\frac{1}{2}$ years.

(Relationship unknown).

Chama Rajah,
(1731-1733).
A member of the Hemanhully family, chosen to succeed Dodda Krishna Rajah. Deposed and imprisoned by his cousin the Dalavay Deva Rajah.

Dodda Deva. (A son). (A son)

Chikka Deva.
(1672-1704).
Became a convert from the Lingayet to the Veishnava religion. Obtained possession of Bangalore by purchase from Yeckojee of Tanjore. Conquered and added to the crown several new tracts. Defeated the Mahrattas. Reformed the land tenure system.

Canteerava Rajah, called Mookarasoo, or the dumb king
(1704-1714).

Dodda Krishna Rajah,
(1714-1731).
Under this prince, the kingdom began to decline.

Kempa Deva Rajah,
(1659-1672).
Assumed the name of Dodda (or "Great") Deva Rajah. Repulsed an invasion by Sivappa Naick of Bednore (or Ikkairy) with whom had taken refuge Shree Runga, one of the last princes of Vijianugger. Took Erode from the Naick of Madura.

With Chama Rajah ended the old line of kings, and a disturbed period followed, during which the Mahomedans gradually gained the upper hand, while maintaining a puppet sovereign chosen almost at random from various branches of the royal family. Chikka or Immady Krishna Rajah of Kenchengode, a member of a distant branch, was put on the throne in 1734 and died in 1766, being nominally succeeded by his son Chama Rajah, who died childless in 1775. Chama Rajah, son of Devarajah Arasoo of Aurcotaur, a member of the Cauroogahully family, was then selected at random by Hyder, who had usurped the government. He died in 1796. But the real rulers during this period were —

	A.D.
Hyder Ally Khan	1761-1782
Tippoo Sultan	1782-1799

On the fall of Seringapatam and death of Tippoo, the British Government restored the Hindoo Raj, and placed on the throne the son of the last-named Chama Rajah, since when the line has been continued as follows :—

	A.D.
Krishna Rajah Oodaiyar	1799–1868
Chama Rajendra Oodaiyar	1868

The latter was a minor at his accession, and received the government in 1881.

(5) NAWABS OF THE CARNATIC.

1. Zoolfacar Ally Khan.
Son of Asaud Khan. Created Nawab by Aurungzeeb, and made subject to the Soobahdar of the Deccan. Governed from A.D. 1692 to 1703.

2. Davood Khan.
Son of Kizar Khan. Was appointed successor to Zoolfacar Ally and ruled from A.D. 1703 till 1710, when he was made Commander-in-Chief at Delhi.

Agibatty Mahomed Khan.

3. Saadatoollah Khan (A.D. 1710–1732), otherwise called Mahomed Syed. He was created successor to Davood. Adopted his brother's sons, having himself no issue.

Ghoolam Ally Khan. Was made Jagheerdar of Vellore by Saadatoollah Khan. Partitioned his estates amongst his four sons.

4. Ally Dost Khan (A.D. 1732–1740). Ghoolam Houssain, nephew of Saadatoollah's wife, was his Diwan.

Baukir Ally. Was made governor of Vellore by his adoptive father Saadatoollah in A.D. 1732.

Saadat Ally Khan.

Acbar Mahomed Khan.

Ghoolam Raza Khan.

Ghoolam Moortaza Ally. Married a daughter of Ally Dost. He was governor of Vellore.

5. Safdar Ally Khan (A.D. 1440–1742). Murdered by Moortezah Ally.

(Daughter.) Married Moortezah Ally.

(Daughter.) Married Takee Sahib of Wandiwash.

(Daughter.) Married Chanda Sahib, a distant relative. Chanda Sahib's daughter by a former wife having married Ghoolam Houssain, Ally Dost's Diwan, Chanda Sahib gained the diwanship for the time and raised himself to power.

6. Mahomed Syed, alias Saadatoollah Khan, posthumous. (A.D. 1742—1744). Murdered at Arcot.

(A son),

Hajee Mahomed Anwar.

7. Mahomed Anwar ood deen, (A.D. 1744–1749). Killed in battle against Chanda Sahib and Mozuffer Jung of Hyderabad.

Mafooz Khan. Was taken prisoner in the battle in which his father was killed, and was shortly afterwards released. He never opposed Mahomed Ally, and was by him appointed governor of Madura.

8. Mahomed Ally, alias Nawab Wallajah, (A.D. 1749–1795).

Abdool Raheem.

Abdool Wahaub.

Najeeboollah.

9. Oomda ool Oomrah, (A.D. 1795–1801).

Ameer ool Oomrah.

10. Azeem ood dowlah (A.D. 1801–1819).

11. Azam Jah Bahaudur (A.D. 1819–1825).

12. Azeem Jah Bahaudur, Regent 1825–1842, "Prince of Arcot" 1867–1874.

13. Ghoolam Mahomed Ghouse Khan (1842–1855). (Died without issue.)

Zaheer ood dowlah Bahaudur, G.C.S.I., "Prince of Arcot," 1874–1879.

Intilzaum ool moolk Bahaudur, "Prince of Arcot," 1879. (Present prince).

Oomdat ood dowlah Bahaudur, (Died 1881).

Mooazzaz ood dowlah Bahaudur.

APPENDIX No. XL.

MADRAS CHRONOLOGICAL ANNALS WITH INCLUSION OF THE PRINCIPAL DATES OF GENERAL INDIAN HISTORY.

NOTE.—*Many of the dates are necessarily mean dates, and some are conjectural.*

Lost in antiquity. The Vedas.
3102 B.C.—At the march equinox the Kaliyoog began. The Aryans entered Northern India about this time.
2387.—First severance of the Ceylon island from the mainland, according to the Booddhist chronicles; the first recorded fact affecting the south of India. The Dravidian tribes may have been in existence for an indefinite period before this.
2034.—Invasion of India by Semiramis, Queen of Nineveh, according to Diodorus Siculus.
1500.—The composition of the Sanscrit Mahabharat before this date; the action of the poem still earlier.
1000.—The same for the Sanscrit Ramayana.
981.—Invasion of India by the Egyptian king Sesostris or Ramases, according to Diodorus Siculus.
900.—The Sanscrit Institutes of Menoo before this date.
560.—Birth of Sakya Moony, or Gowtama Booddha (died 481), who lived in the reign of Ajauta Shatroo, king of Magadhah.
543—Arrival of the Aryan refugee Vijaya in Ceylon. He establishes himself at Mantotte.
521.—Darius, king of Persia, invades Northern India.
505.—Pandoovassa, nephew of Vijaya, king of Ceylon, founds Anooradhapoora.
500.—Hecataeus of Miletus on Indian geography.
450.—Herodotus on Indian geography.
400.—Ctesias on Indian geography.
350.—Chola and Pandya dynasties united by marriage.
327.—Alexander invades the Punjaub, crosses the Jhelum, and defeats Porus the elder. Afterwards retreats.
320.—Chundragoopta (Sandracottus), king of Magadhah (Behar); ninth in succession from Nanda. Establishes the Maurya dynasty. Has his capital at Palibothra (Patna).
300.—Chundragoopta succeeded by his son Mitragoopta or Bimbisara. Megasthenes, ambassador from Seleucus Nicator of Babylon, to Chundragoopta; writes an account of India.
280.—Grœco-Bactrian supremacy.
260.—Asoca, grandson of Chundragoopta, king of Magadhah. Promulgates edicts which have been discovered on a rock at Jowgada in Ganjam and at other places. He leaves the Hindoo religion and favours the Booddhists.
250.—Eratosthenes on Indian geography.
188.—Extinction of the Maurya dynasty founded by Chundragoopta. Followed by the Sangas; first king, Pooshpamitra.
150.—Hipparchus on Indian geography.
100.—Indo-Scythian supremacy; afterwards overthrown by Gooptas and Rajpoots at the battle of Kahror (date doubtful). Dynasty of Shahs in Surat; either Parthians or Persians.
76.—Sangas subverted by the Kanwas; first king, Vasoodeva.
57.—Commencement of the era of Vicramaditya.
31.—Kanwas subverted by the Andhras; first king, Sipraca. Vicramaditya founds Warangal on the Godavery, and also rules over Magadhah. Defeats the Huns or Scythians.
27.—Embassy to Augustus from South Indian Tamul ruler. Strabo on Indian geography.
43. A.D.—Pomponius Mela on Indian geography.
50.—Pliny the Elder on Indian geography.
52.—St. Thomas visited Malabar.
68.—St. Thomas assassinated at Mylapore or St. Thomé.
78.—On the 14th March the Salivahana Saca began.
80.—Periplus of the Erythraean Sea.
150.—Arrian, Marinus of Tyre, and Ptolemy on Indian geography.
319.—Wallabhee or Goopta Rajahs.
400.—Pilgrimage of Fah-Hian. Varaha Mihira, Sanscrit geographer and astronomer.
525.—Vicramaditya, king of Malwah, and said to be paramount ruler of India; but this is fabulous.
540.—Cakoostavarma, first Cadamba king of Halsa in Belgaum.
560.—Cosmas Indicopleustes, Greek merchant, visits India.
570.—Birth of Mahomed.
622.—On the 15th July the flight to Medina, and commencement of Hijrah era.
640.—Travels of Hwen Thsang. Empire of Canouj; Maharajah Seeladitya. Booddhist-Brahmin controversies.
664.—The Mahomedans invade Cabool, and cross the Indus.
711.—The Mahomedans conquer Scinde.
824.—Abdication of the last of the Chera Permauls or Governors of Malabar.
851.—Sooliman, Arab geographer.
900.—Ibn Khoordadba, Arab geographer.
950.—Al Masooda, Arab geographer.
997.—Mahmood of Ghuznee.
1001.—Mahomedan invasion. Mahmood at Peshawar. Turkish conquest of the Punjaub. Twelve Turkish invasions of Hindostan, culminating in the battle of Somnauth (1024).
1025.—Supremacy of the Cholas over nearly the whole of the south, under Rajendra Chola. Bhaskaracharya, Sanscrit astronomer and geographer.
1030.—Death of Mahmood.
1047.—Vinayaditya, the first authentic king of the Hoysala Ballaulas at Dwarasamoodra. This dynasty lasts till 1310.
1059.—The Cholas conquer Ceylon and hold it for twelve years.
1112.—Coolottoonga Chola succeeds Rajendra.
1164.—Birth of Jenghis Khan.
1173.—Madura conquered by the king of Ceylon.
1175.—Yadavas of Devagiry. The last king Haripala defeated and killed by Moobarak, king of Delhi.
1180.—Afghan supremacy at Delhi: Mahomed Ghory (d. 1206).
1194.—Mussalman advance to Benares. Foundation of principalities in Rajpootana.
1206.—Dynasty of Afghan Slave-kings. Cootb ood deen, Sultan of Delhi (d. 1210).
1288.—Keikobad, the last of the slave kings murdered, and succeeded by Jelaul-ood-deen, founder of the Khiljy dynasty of Delhi.
1292.—Marco Polo in India.
1294.—Mahomedan expedition into the Deccan under Allah-ood-deen, who defeats the Hindoos.
1295.—Jelaul-ood-deen murdered and succeeded by Allah-ood-deen.
1300.—Aboolfeda of Damascus, Arab geographer. Marino Sanuto, a Venetian nobleman, visits India.
1306.—Mahomedan expedition into the Deccan, despatched by the Bahminy king Allah-ood-deen, under the command of Malik Kaufoor, who sacks Dwarasamoodra.
1310.—Rasheed-ood-deen, Arab geographer.
1321.—Toghlak founds the dynasty of Toghlak Sultans at Delhi. Odorico di Pordenone, a Minorite friar, visits India.
1324.—Capture of Madura by the Mahomedans.
1325.—Mahomed Toghlak (d. 1350).
1327.—Birth of Tamerlane.
1330.—Ibn Batuta, Arab traveller and geographer.
1336.—Hindoo kingdom of Vijianugger founded by Hukka and Bookka, two refugees from Warangal.
1347.—Bahminy Mahomedan kingdom of the Deccan founded.
1350.—Firoze Shah (d. 1388).
1365.—Paracrama Pandya, the first of the modern series of Madura rulers.
1372.—Cumpana Wodeyar, probably a general of the Vijianugger Rajah, drives the Mahomedans out of Madura.
1398.—Timoor the Tartar (Tamerlane) invades Hindostan and sacks Delhi (d. 1404).
1414.—Syed dynasty at Delhi.
1430.—Nicolo Conti, a noble Venetian, travels in India and the East for twenty-five years.
1450.—Lody dynasty of Afghan Sultans at Delhi.
1470.—Athanasius Nikitin, a Russian, visits India.
1484.—Imad Shahy dynasty of Berar.
1487.—A Portuguese, named Covilham, visits Calicut.
1489.—Adil Shahy dynasty of Beejapore. Nizam Shahy dynasty of Ahmednugger.
1493.—Baber becomes king of Ferghana.
1496.—John Cabot tries to discover a north-west passage to India.
1498.—Portuguese arrive in Malabar, under Vasco da Gama, after rounding the Cape of Good Hope.
1500.—Five minor Mahomedan kingdoms in the Deccan, succeeding the Bahmany. Cabral builds a Portuguese factory at Calicut.

1502.—First settlement of the Portuguese in India at Cochin under Vasco da Gama.

1505.—Almeida, first Portuguese Viceroy of India. Ludovico di Varthema, a Bolognese, visits India.

1509.—Albuquerque, Viceroy of Portuguese India.

1510.—Krishna Royer, the most powerful king of Vijianugger. The Portuguese capture Goa.

1512.—Cootb Shahy dynasty of Golcondah.

1513.—The Portuguese make an unsuccessful attempt on Aden, and sail up the Red Sea.

1515.—Death of Albuquerque.

1518.—The Portuguese open trade with Bengal.

1524.—Vasco da Gama, Viceroy of Portuguese India.

1526.—Afghan Sultans of Delhi overthrown at the first battle of Paniput by Baber the Moghul, great-grandson of Timoor (d. 1530). Foundation of the Moghul empire.

1527.—Death of Vasco da Gama at Calicut. Battle of Sikri; the Rajpoots utterly defeated by Baber.

1530.—Baber succeeded by Hoomayoon (d. 1556).

1536.—Second battle of Paniput. The French make an unsuccessful attempt to establish an East India trade.

1538.—Portuguese mission to Bengal. Turkish attack on the Portuguese at Dew.

1540.—Hoomayoon defeated by Sher Khan. Afghan rule in Hindostan.

1555.—Return of Hoomayoon.

1556.—Acbar (d. 1605). Origin of the fusly year in Upper India; copied later in the south.

1559.—The Naick dynasty of Madura founded by Vishwanatha. Lasts till 1796.

1565.—Battle of Talicote and destruction of the Vijianugger or last Hindoo kingdom.

1567.—Destruction of Chittore and Moghul supremacy throughout Rajpootana. Moghul conquest of Ahmednugger and Berar.

1575.—Rise of Abool Fazl. Rebellion of Selim (Jehaungeer).

1577.—Drake's journey round the world.

1578.—The French make another unsuccessful attempt to establish an East India trade.

1579.—Thomas Stephens, the first Englishman in India.

1581.—Formation of the "Turkey and Levant Company" for trade with India.

1591.—First mercantile adventure from England.

1594.—William Barents, the Dutchman, endeavours to discover a north-west passage.

1595.—Appearance of the Dutch in the Indian seas under Cornelius Houtman. Acbar invades the Deccan.

1600.—Formation of the London East India Company.

1602.—The Dutch East India Company formed.

1603.—The Dutch blockade Goa.

1604.—Henry IV of France grants a charter to an East Indian Company. The Dutch establish factories in Southern India.

1605.—Death of Acbar, who is succeeded as Emperor by Jehaungeer (d. 1627).

1606.—Robert de Nobilibus a. Jesuit missionary, preaches at Madura with success.

1608.—Mission of Captain Hawkins to Agra.

1611.—Factory established at Pettapoly or Nizampatam. The first English vessel arrives at Masulipatam. Second French Company.

1612.—Factories at Surat, Cambay, Amadanar, and Gogo. A Danish East India Company formed at Copenhagen.

1615.—Embassy of Sir T. Roe to the Court of Delhi. The French at Madagascar. Third French Company.

1616.—Factory established at Calicut.

1619.—The Dutch obtain possession of Java.

1620.—The Danes at Tranquebar.

1621.—Factories established at Masulipatam and Poolicat.

1622.—Massacre of English at Amboyna.

1623.—Travels of Pietro della Valle.

1624.—Judicial authority given to the Company.

1625.—Vencatappa Naick, Rajah of Canara. Factory at Armegam in Nellore.

1627.—Shah Jehaun (d. 1665).

1632.—Moghul capture of the Portuguese settlement at Hooghly.

1634.—Factories established in Bengal and at Veeravausaram in Godavery.

1635.—Courten's trading association formed.

1639.—Madras founded by Mr. Day, chief of the Armegam factory. A cowle for building the Fort obtained, through the mediation of the Naick of Chingleput, from the Rajah of Chundragherry, a descendant of the Hindoo family which had once reigned at Vijianugger. The place afterwards called Chennaputnam by the natives, after Chennappa, father of the local Naick. The Dutch again blockade Goa.

1640.—English settlements in Bengal at Hooghly, Patna, and Dacca. Fort St. George begun on 1st March between the river Cooum and the sea; and natives encouraged to settle in the neighbourhood.

1642.—Official communications in the form of a General

settlement placed under the Presidency of Bantam in the Island of Java, being intended to supply goods from the Coromandel Coast to meet a demand which existed in Java. Fourth (or Richelieu's) French Company.

1643.—Fort St. George completed, after an expenditure of Rupees 23,000.

1644.—Fifth (or Colbert's) French Company.

1647.—The Dutch commence trade at Sadras.

1650.—Courten's association unites with the London Company.

1652.—Mr. Aaron Baker, first Governor of Fort St. George, mentioned. He settles a dispute between the right and left hand castes. The garrison only consists of twenty-six soldiers. First Dutch factory at Palcole.

1653.—The Fort St. George Agency raised to the rank of a Presidency.

1654.—The Presidency ordered to reduce its establishment to two factors and ten soldiers. The "Merchant Adventurers' Company" formed.

1656.—The Dutch capture Calicut from the Portuguese.

1657.—"Merchant Adventurers" unite with the London Company.

1658.—Aurungzeeb (d. 1707). The Dutch drive the Portuguese out of Ceylon.

1659.—Sir Thomas Chamber, Governor of Madras. He gives a cowle to the Pedda Naick who undertakes to guard the town of Chennaputnam (Madraspatnam). Twenty peons at this period a sufficient police.

1660.—The Dutch capture Negapatam. Rise of the Mahrattas.

1661.—Sir Edward Winter appointed Governor of Madras.

1662.—Bombay ceded to the Crown of England by the Portuguese (given by the Crown to the Company, 1668).

1664.—Sivajee the Mahratta captures Surat. The Dutch capture the Portuguese settlements on the Malabar Coast.

1665.—Mr. Foxcroft arrives at Fort St. George with a commission to supersede Sir Edward Winter, but is imprisoned by the latter.

1666.—War between Mahrattas and Moghuls. Aurungzeeb threatened by Persia. Afghan massacre of Moghuls in the Khyber Pass.

1668.—Arrival of Sir William Langhorn to investigate the dispute between Sir E. Winter and Mr. Foxcroft. Finally Mr. Foxcroft becomes Governor of Madras for one year. Macara and Caron establish French factories at Surat and Golcondah.

1669.—English factory at the Island of Madakara, north of Cannanore. The Dutch take St. Thomé from the Portuguese.

1670.—Sir Edward Winter and Mr. Foxcroft both return to England. The earliest records in the Madras Government Office commence this year in the shape of General Letters from England. Sir William Langhorn, Governor of Madras. A cowle obtained from the Mahomedan King of Golcondah through the Nawab Neenam Khan, by which it is agreed that 1,200 pagodas shall be paid yearly by the Company as rent to the King of Golcondah for the town and fort of Chennaputnam. A Second Danish Company formed in Copenhagen.

1672.—Occupation of St. Thomé by the French under Admiral De la Haye. St. Thomé besieged by the Dutch. Neutrality of Sir William Langhorn. The French occupy Mauritius and Bourbon.

1673.—Travels of Dr. Fryer.

1674.—Sivajee, Maharajah of the Mahrattas (d. 1680). Surrender of the French at St. Thomé to the Dutch. Pondicherry built by Martin. It is afterwards captured by the Dutch, but restored by treaty of Ryswick.

1676.—Commission of Major Puckle to enquire into abuses at Fort St. George. The French obtain Chandernagore.

1677.—Mr. Streynsham Master, Governor of Madras. Capture of Jinjee and Vellore by the Mahrattas under Sivajee. Mr. Master sends presents to Sivajee. Encroachment of the sea.

1678.—Establishment of a High Court of Judicature, March 18. Foundation stone of St. Mary's Church in Fort St. George laid, April 1.

1679.—Factory at Madapollam in Godavery.

1680.—Opening of St. Mary's Church in Fort St. George, Oct. 26. Blockade of Fort St. George by the Naick of Poonamallee. Death of Sivajee.

1681.—Mr. William Gyfford, Governor of Madras. The first detachment of 30 soldiers sent to Bengal from Fort St. George. Factory at Porto Novo or Farangipett in South Arcot.

1682.—Moghuls repulsed in Rajpootana. Great encroachments of the sea at Madras. Peremptory dismissal of Mr. Bridger, Member of Council. Factory at Cuddalore in South Arcot. Bengal made a

Factories established at Vizagapatam and Conimere in South Arcot, and at Tellicherry on the Malabar Coast.

1684.—Appointment of a Judge Advocate and erection of a Court of Admiralty at Madras in the room of the High Court of Judicature. Attempt to raise a monthly tax from the inhabitants of Madras.

1685.—War between the English and Moghuls. Proclamation against Interlopers. Difficulties in levying the monthly tax at Madras.

1686.—Attempts to rent St. Thomé from the King of Golcondah. Overthrow of the kingdom of Beejapore by Aurungzeeb. Plunder of Hyderabad by Prince Moazzim. Perilous state of the kingdom of Golcondah. Preparations for defending Madras against the Moghul army. The French obtain a temporary footing in Siam.

1687.—Mr. Elihu Yale, Governor of Madras. Hostilities against the Moghul in Bengal. Struggles between the English and Portuguese for the possession of St. Thomé. Reduction of Golcondah by Aurungzeeb.

1688.—Establishment of a Mayor and Corporation of Madras. Establishment of an Assurance Office. Population of Madras estimated at this period at 300,000.

1689.—Foundation of Calcutta (originally called Chuttanuttee) by Charnock. The Company's servants desert Bengal, and take refuge at Madras. Attack on the English factory at Vizagapatam.

1690.—Rise of the Armenian community at Madras. Action with the French Fleet in the Madras road. Quarrels between Mr. Yale and the Council. Quarrels between Mr. Yale and the Mayor and Corporation. Tegnapatam or Fort St. David purchased from Ramrajah for Rupees 32,000. A troop of horse and a company of European artillery added to the strength of the Fort St. George garrison.

1691.—Missionary efforts of the Court of Directors on behalf of the Portuguese and slaves.

1692.—Cowle obtained from the Grand Vizier Assid Khan and from the Nawab Zoolfakar Khan for the out towns of Egmore, Pursewaukum and Tondiarpett. Mr. Nathaniel Higginson, Governor of Madras, and Sir John Goldsborough, Commissary-General. War in the Deccan between Aurungzeeb and the Mahrattas. Siege of Jinjee by the Moghul army.

1693.—Capture of Pondicherry by the Dutch. Disputes between Governor Higginson and the Bishop of St. Thomé respecting the exercise of ecclesiastical authority within the English boundaries. Disputes with the Naick of Poonamallee respecting Egmore, Pursewaukum, and Triplicane. Tondiarpett, Pursewaukum, and Egmore villages granted to the English by a purwanna from Aurungzeeb's Grand Vizier.

1694.—Dr. Blackwall suspected of having designs on Fort St. David. Mr. Yale sends a letter of complaint to the Court of Directors. Settlement at Anjengo, on the Travancore coast, under a grant from the Queen of Attingal, on payment of ground-rent.

1695.—Moghul army encamps before Jinjee. Disputes between Zoolfakar Khan and Davood Khan. Unsettled state of St. Thomé.

1696.—Fresh encroachment of the sea. Increased difficulties with the Nawab Zoolfakar Khan. News of a French expedition to the Coast of Coromandel.

1697.—Attempts of the Junkameer of Vepery to collect Land Customs from goods going to Madras. Attack on the English factory at Anjengo.

1698.—Capture of Jinjee by the Nawab Zoolfakar Khan. Selim Khan attacks Cuddalore. Retirement of Governor Higginson. Mr. Thomas Pitt, Governor of Madras. Purwanna obtained for Fort St. David. Proclamation of the peace of Ryswick, by which Pondicherry is restored to the French. The "English Company" formed.

1699.—Danish settlement at Tranquebar attacked by the Rajah of Tanjore.

1700.—Fears excited by the new Nawab Davood Khan. Fort William or Calcutta founded.

1701.—Arrival of Nawab Davood Khan at St. Thomé.

1702.—Blockade of Fort St. George by Davood Khan, who at last retreats with a present. Gunpowder first manufactured at Madras. The rival East India Companies coalesce under charter from Queen Anne into the 'United Company of Merchants trading to the East Indies,' and so continue till 1833.

1703.—Mr. Consul Pitt of the new company dies at Devanampett, May 8. His death facilitates the settlement between the servants of the two companies.

1704.—Pirates on the coast, and in the Straits of Malacca. Aurungzeeb threatens the English in consequence of the piracies perpetrated. Mr. Pitt appeals to the Dutch and Danes for aid. Davood Khan at St. Thomé seizes goods. The Portuguese Governor and Merchants, with their Bishop, appeal to Mr. Pitt. Mr. Pitt sends an agent to watch proceedings. Davood Khan demands a large sum of money. Fort St. David is besieged. Terms made with Davood Khan, for a cessation of hostilities, by giving 25,000 rupees. A Roman Catholic patriarch of Antioch holds correspondence from Pondicherry with the Madras Governor, who give a favorable reception, and offer liberal treatment to his clergy, during good behaviour; but if he or they leave Madras they are not to return. Disputes between the right hand and left hand castes. The left hand party demand at least equal rights. The President sets up stone pillars and separates the parties. Mr. Pitt buys, in 1704, a valuable diamond for Rupees 2,04,000, which he has polished in London, and sells in 1717 to the Regent of France for Rupees 13,50,000. He is recalled.

1706.—Ziegenbalg and Plutschau, the first Danish missionaries at Tranquebar, and the first Protestant missionaries in India.

1707.—Bahaudur Shah, Emperor of Delhi (d. 1712). Sahoo Row, Maharajah of the Mahrattas (d. 1748). Balajee Wishwanath, first Peshwa (d. 1720).

1708.—Vyasarpaudy and Nungumbaukum villages granted to the English by the Nawab of the Carnatic. Also Trivettore, Shattancaud, and Cuttiwaukum or Ennore. English settlement at Tellicherry.

1709.—Gulston Addison, brother of the celebrated author, becomes Governor of Madras in place of Mr. Pitt. Dies, October 17. Edmond Montague, a Councillor, governs provisionally during fourteen days. William Fraser returns to Madras and becomes Governor, Nov. 2. Hindoo temple at Pondicherry destroyed through the influence of the Jesuits; consequent riots.

1711.—Edward Harrison, Governor of Madras, appointed by the Court, arrives July 11. He has a long dispute with Robert Raworth, Governor of Fort St. David, which he settles with great difficulty. Raworth is supported by the French, and Harrison is obliged to go in person to obtain the keys of the fort.

1712.—Jehander Shah, Emperor.

1713.—Ferokshere, Emperor (d. 1719). Asaf Jah, Nizam-ool-moolk, Soobahdar of the Deccan.

1715.—English mission from Calcutta to Delhi. Surgeon Hamilton cures the Emperor, and obtains permission for the Company to trade. Warehouse built on Chetwye Island, Malabar, by permission of the Zamorin.

1717.—Joseph Collett becomes Governor of Madras. Erects charity schools. Causes silver to be coined in the king's name. Madras, at this period, regarded as the chief factory of the Company in India. Charges brought against the Governor of Sumatra, which are investigated there.

1719.—The French Company of the Indies.

1720.—Mahomed Shah, Emperor of Delhi. Bajee Rao, second Peshwa (d. 1740). Francis Hastings becomes Governor of Madras.

1721.—Investigation into the murder of English at Syriam in Pegu. Nathaniel Elwich arrives from England and becomes Governor of Madras, Oct. 15. He and the Council endeavour to obtain surrender of twenty-nine treasure-chests, made away with by Governor Hastings, with the concurrence of the storekeeper, Cooke. By threatening to arrest them, the Council obtains security in diamonds and in claims of several ships. The balance due by Hastings amounts to 72,027 pagodas. Hastings gives security, and dies in November. Governor Elwich borrows 10,000 pagodas from the Jesuits in China, and agrees to pay them 6 per cent. A severe storm at Madras, Nov. 13—15. The bridges carried away and several ships wrecked. Disputes with the French, at Pondicherry, about ships taken by the English privateers. The importation at Pondicherry of goods by British subjects prohibited.

1722.—Factory at Injaram in Godavery.

1723.—A Mint erected in Fort St. George. Austrian East India Company formed.

1725.—James Macrea, Governor of Madras, Jan. 12. Letters from Vizagapatam state that the Nawab is much indebted; and fears are entertained that the Mahomedan soldiery will begin to plunder the country. Some men sent to protect Vizagapatam. The ship 'Amity' seized by the French at Port Louis as an interloper. Two Bengal ships seized at Jeddah. The Danish missionary Schultze at Tranquebar. The French capture Mahé.

1726.—The Court of Mayor and Aldermen established at Madras. English Law extended to India. First Protestant Mission in Madras Town.

1727.—Austrian East India Company suspended for 7 years under pressure from other maritime powers.

1730.—George Morton Pitt, the Deputy Governor at Fort St. David, becomes Governor of Fort St. George,

May 14. Great complaints made by the natives of the oppressions and exactions of Gooda Anconah, the doobash of the late Governor. He is arrested, tried, and, being found guilty, is condemned to pay 20,000 pagodas. Dupleix Intendant of Chandernagore; afterwards Governor of Pondicherry.

1731.—A Portuguese monopoly ship to Surat and Coromandel coast. The Swedish Government make their first Indian venture; Swedish Company of Stockholm.

1732.—Treaty concluded with the French.

1733.—Spanish "Royal Company of the Philippine Islands."

1734.—Dharmapatam Island, to the north of Tellicherry, and Madakara, ceded to the English.

1735.—Richard Benyon Governor of Madras. Having doubts as to his right within the boundary of Madras, to arrest Mussalmans for debt, without the sanction of the Mayor's court, he asks the opinion of the Council, who support his privileges. Another difficulty arises, from an European constable having maltreated a Poligar without those bounds. Notice is given to the Sheriff not to proceed beyond his jurisdiction, and the fees taken from the Poligar are ordered to be restored. Dumas Governor of Pondicherry.

1736.—Mahrattas advance on Agra and Delhi. Nizam ool moolk, Nizam of the Deccan; defeated by Bajee Rao. Civil war in Trichinopoly.

1738.—Invasion of Nadir Shah.

1739.—Nadir Shah enters Delhi. Sarfaraz Khan, Nawab of Bengal (d. 1742). Sahoo Rajah suspected of entertaining designs against Madras. The walls and fortifications repaired and strengthened. Treaty of commerce and friendship between the British Government and the Mahrattas. Caricaul ceded to the French by Chunda Sahib.

1740.—Balajee Row, third Peshwa (d. 1761). Mahrattas invade the Carnatic. Prataup Sing, Rajah of Tanjore.

1741.—Randatarra in North Malabar mortgaged to the Company by its chiefs. The Mahrattas appear before Fort St. George and demand tribute, but retire on being fired at.

1742.—Aliverdy Khan, Nawab of Bengal. Mahratta invasions of Bengal. Dupleix, Governor of Pondicherry. Vepery, Perambore, and Poothoopauk villages (now included in the city of Madras), granted to the English by the Nawab of Arcot; Yeranavore and Shadayancooppam villages to the south of Madras held at a pepper-corn rent on Shrotriem tenure.

1743.—English mission to Nizam ool moolk at Trichinopoly. Nicholas Morse becomes Governor of Madras. The appearance of the Mahrattas on the banks of the Kistna excites apprehension. War breaks out in Europe. A Pathaun plot to murder the Nawab of Arcot is frustrated. The fortifications of Madras further repaired and strengthened. Dupleix, Governor of Pondicherry.

1745.—War between England and France.

1746.—An English squadron appears off Madras under Commodore Barnet. He dies at Fort St. David in April 1746. Peyton succeeds. He engages with the French, June 25, and retires to refit at Trincomalee. Labourdonnais, the French Admiral, attacks Madras, Sept. 4, on the 7th, bombards the White Town. The bombardment is continued until the 10th, when the English submit, having lost five men; these become prisoners of war, but on condition that the town should be ransomed on easy terms. The Nawab expresses his dissatisfaction, but Dupleix promises to deliver Madras to him. The French authorities differ amongst themselves; and although their fleet is strengthened, the opportunity of conquering all the English settlements is lost by delay. A storm breaks out, Oct. 2, which disperses the French fleet; several ships founder and others are driven on shore. The treaty for the ransom of Madras is signed, and Labourdonnais sails for the Isle of France, leaving 1,200 men to garrison Madras. Labourdonnais not having fulfilled his promise, the Nawab tries to take the town, but is repulsed. He then moves to St. Thomé, from which place, he is driven by the French, under Captain Paradis, who is appointed by Dupleix to be Commandant at Madras, and the capitulation being declared void by Dupleix, rigid terms are imposed on the English. The Governor Mr. Nicholas Morse and the principal inhabitants are taken as prisoners to Pondicherry. Madras remains in possession of the French from Sept. 10, 1746, to Aug. 13, 1749, when it is restored by virtue of the treaty of peace signed at Aix-la-chapelle. The government of the English settlements devolves on the Deputy Governor of Fort St. David, John Hinde, who dies soon after and is succeeded by Charles Floyer.

1747.—Rise of Ahmed Shah Dooranee, founder of the Afghan empire (d. 1773); Jemaul Khan Barookzye. Mr. Charles Floyer, Governor of Madras, from 16th April 1747 to 6th July 1750.

1748.—Rajah Rama, the puppet Maharajah of the Mahrattas, a state prisoner at Sattara. Afghan invasion of India under Ahmed Shah Abdalee. Stringer Lawrence fails to take Pondicherry. Death of Mahomed Shah. Ahmed Shah, Emperor. Death of Nizam ool moolk whose son Nazir Jung proclaims himself soobahdar. Death of Maharajah Sahoo. Peshwa sovereignty begins. First appearance of Clive. Battle between English and French at Ariancooppam. Cowle from the first King of Cotiote, in the Malabar Coast, granting the Company the sole privilege of export of pepper and cardamoms, dated 31st July. Nizam ool moolk dies. Moosafer Jung and the French defeat Anwar ood deen, Nawab of the Carnatic, at Amboor. Moosafer then assumes the title of soobahdar and appoints Chanda Sahib Nawab of the Carnatic. The English under Admiral Boscawen besiege Pondicherry unsuccessfully.

1749.—Peace of Aix-la-Chapelle, in October, by which Madras is restored to the English. English aggressions on Tanjore. Devicottah captured by Major Lawrence. The English take possession of St. Thomé, which is afterwards granted to them by the Nawab of the Carnatic.

1750.—Nazir Jung at Arcot; appoints Mahomed Ally, son of Anwar ood deen, Nawab, and imprisons Moosafer Jung. Victories of Dupleix. Bussy captures Jinjee. French capture of Masulipatam. Nazir Jung killed, and Moosafer Jung becomes soobahdar through Dupleix' help. Peace between Aliverdy Khan and the Mahrattas. Tiroovendipooram in South Arcot granted to the Company in jagheer by the Nawab of Arcot. Also Poonamallee in Chingleput. Thomas Saunders becomes Governor of Madras, Dec. 8. He is encouraged by Mr. B. Robins, the Engineer, to attack Moosafer Jung, but Captain Cope and the officers oppose the attempt. The Danish missionary Swartz at Tranquebar and Tanjore.

1751.—Ascendency of Dupleix. The French besiege Trichinopoly. Clive's expedition to Arcot. Siege of Arcot and gallant defence for seven weeks. Moosafer Jung killed in battle, succeeded by Salaubut Jung. Devicottah ceded to the English by the Rajah of Tanjore. Factories at Bundermalanka and Neelapully in Godavery.

1752.—Clive's victories in the Carnatic. French surrender at Trichinopoly. Fort St. George again becomes the seat of Government. Chunda Sahib gives himself up to the Tanjore general and is assassinated.

1753.—Clive goes to England. Firmaun of the Great Moghul, commanding Moosafer Jung to aid the Governor of Pondicherry in every way. The Northern Circars ceded to the French. Unsuccessful siege of Trichinopoly by the French. Death of Labourdonnais.

1754.—Ahmed Shah, Emperor of Delhi, blinded and deposed, and succeeded by Alamgheer. Janojee Bhonslay succeeds Raghojee Bhonslay as Rajah of Berar. Treaty between the English and the French for the cessation of hostilities and the restoration to the Native powers of their possessions in the Carnatic, dated 31st December. Stipulations between the English and the French for the prevention of the establishment of Foreign European Settlements in their possessions, dated 31st December. Dupleix superseded by Godeheu. Bussy's ascendency at Hyderabad.

1755.—Anglo-French treaty at Pondicherry. Return of Clive. George Pigot becomes Governor of Madras in place of Mr. Saunders. The Nawab, Mahomed Ally, comes to Madras. The apprehension of another attack from the French obliges the Madras Government to strengthen the fortifications. Bussy is ordered away from the Court of Hyderabad, but overawes the Nizam. Death of Raghojee, the Mahratta, succeeded by Janojee.

1756.—Destruction of Gheriah by Watson and Clive. Hyder conquers Seringapatam. Sooraj ood Dowlah, Nawab of Bengal, captures Calcutta. The Black Hole. Madras troops under Clive embark for Calcutta. Treaty of offensive and defensive alliance concluded between the East India Company and the Rajah of Chiracal, on the Malabar Coast. Renewal of hostilities with the French.

1757.—English capture Chandernagore. Mahrattas claim chowt for Bengal and Behar. Ahmed Shah Abdalee at Delhi; drives out Ghazee ood deen. Bussy's war against the Hindoo Poligars; self-sacrifice of Bobbily Rajpoots. Bussy captures Vizagapatam. Recapture of Fort William, January. Battle of Plassey, June 23rd. Meer Jaffer, Nawab of Bengal.

1758.—Advance of the Shahzada, eldest son of Ahmed Shah Padishah, towards Behar; defeated by Clive. Lally in command at Pondicherry. Lally captures Fort St. David. He recalls Bussy from the Deccan. Forde's successes in the Northern Circars. Salaubut Jung goes over from the French to the English. Clive Governor of the English settlements in Bengal. First formation of Sepoy Battalions, December. Madras Town and Fort St. George besieged by the French under Lally, Dec. 12. Firmauns granted by the Rajahs of Bringah and Bednore to Mr. R. Gambier for the purchase of pepper. Clive captures the Dutch settlement of Chinsurah near Calcutta.

1759.—Alamgheer, Emperor of Delhi, murdered at Delhi by Ghazee ood deen. Second invasion of Ahmed Shah Abdalee. Lally raises the siege of Madras. Since this time Fort St. George has never been attacked again. Agreement of peace and friendship between the Honorable East India Company and Ally Rajah of Cannanore, dated 7th March. Treaty with Nawab Salaubut Jung, of Hyderabad, for the cession of Masulipatam and other districts to the English, dated 14th May. Agreement of a defensive alliance concluded between the King of Cotiote, in the Malabar Coast, and the East India Company, dated 23rd August. Brilliant successes of Col. Forde in the Northern Circars, and fall of Masulipatam.

1760.—Coote defeats the French at Wandiwash. Clive departs for England; succeeded by Holwell. Royal grant from the King Regent of Calastry, in Malabar, confirming to the English all the privileges enjoyed by them in the Kingdom, dated 9th September. Bond of the King Regent of Calastry, in Malabar, for the payment of certain balances due to the English Company, dated 9th September. Royal grant from the King Regent of Calastry for the collection of all customs dues in his kingdom by the English Company, dated 22nd November. Firmaun granted by the Rajah of Soondah, in Malabar, to Robert Gambier, Esq., for the purchase of pepper produced in the country, dated 24th December.

1761.—Madhoo Row, fourth Mahratta Peshwa (d. 1772). Nizam Ally deposes Salaubut Jung, and becomes Nizam of the Deccan. Coote captures Pondicherry. French power in the Carnatic annihilated. Third and greatest battle of Paniput, in which the Afghans defeat the Mahrattas with great slaughter. Virtual extinction of the Moghul empire. Ahmed Shah Abdalee appoints Jewaun Baukh (son of the Shahzada) Emperor. Regency of Nazeeb-ood-Dowlah (d. 1770). Return of the Shahzada to Behar; proclaimed Emperor under the name of Shah Alum. Shoojah-ood-Dowlah, Nawab of Oudh (d. 1775), appointed Vizier to Shah Alum. Vansittart, Governor at Calcutta. Deposition of Meer Jaffer. Meer Cassim, Nawab of Bengal; defeats the Nawab Vizier of Oudh. Installation of the Great Moghul at Patna. Agreement concluded with the King of Cartinaud, in Malabar, for the purchase of pepper, sandal-wood, and cardamoms by the English Company, dated 30th December. Mount Delly, in Malabar, given up to the English by Ally Rajah of Cannanore.

1762.—Disputes about private trade. Warren Hastings in the Calcutta Council. Expedition to Manilla. Treaty mediated by the Madras Government between the Nawab of the Carnatic and the Rajah of Tanjore for the payment of tribute to the Nawab, dated 12th October.

1763.—General abolition of duties by Meer Cassim. Patna captured by the English, and recaptured by the Nawab's troops. Capture of Cossim bazaar by the Nawab's troops. Meer Jaffer proclaimed Nawab. English capture Mongheer. Massacre of English at Patna. English storm Patna. Delhi threatened by the Jauts. Robert Palk becomes Governor of Madras. Treaty of commerce concluded between the Honorable Company and Nawab Hyder Ally Khan Bahaudur, of Mysore, dated 27th May. Sunnud from the Nawab of the Carnatic, conferring on the English certain districts dependent on the Soobah of Arcot, including the greater portion of the Chingleput district, dated 16th October. Pondicherry restored to the French at the peace of Paris. Murder of Salaubut Jung. Mahomed Ally declared Nawab of the Carnatic by the Emperor.

1764.—The Nawab Vizier repulsed by the English at Patna. Hector Munro stops a sepoy mutiny. Battle of Buxar. Rise of Shitab Roy. Surrender of the Nawab Vizier. Sooraj Mull, the Jaut hero, slain at Delhi. Dupleix dies in France.

1765.—Death of Meer Jaffer. Governor Spencer sells Bengal and Behar to Mahomed Razah Khan. Return of Clive to India; formation of the double government in Bengal. Firmaun of the Emperor of Delhi, confirming the grants made by the Nawab of the Carnatic to the English, dated 12th August. Sunnud from the Nawab of the Carnatic for the Company's Jagheer at Arcot, dated 30th August. Agreement between the Rajah of Chiracal and Mr. Thomas Byfield for the cession of the Province of Randatarra, in Malabar, to the East India Company, dated 23rd March. Firmaun from the Emperor of Delhi, confirming the acquisitions by the English of the Northern Circars, dated 12th August.

1766.—English treaty with Nizam Ally, who afterwards goes over to Hyder. Treaty between the King of Candy and the Government of Colombo, defining the position of the Dutch authorities in Candy, dated 14th February. Sunnud of Nawab Hyder Ally Khan Bahaudur, confirming all the grants and privileges acquired by the English in Malabar, dated 23rd February. Treaty of perpetual alliance and friendship concluded between the Nizam of Hyderabad and the East India Company, dated 12th November. Lally executed in France. Hyder conquers Malabar.

1767.—Final departure of Clive. Verelst, Governor of Bengal. Rise of Hyder Ally of Mysore. Hyder Ally and Nizam Ally invade the Carnatic. Battle of Erode. Battle of Changama, in which Col. Smith defeats Hyder and the Nizam. Death of Mulhar Row Holcar; accession of Ahilya Bye (d. 1795), and Tookajee Holcar (d. 1797). Last invasion of Ahmed Shah Abdalee. Charles Bourchier, Governor of Madras until Dec. 31, 1770.

1768.—Second English treaty with Nizam Ally. Hostile advance of Hyder Ally against the English. Madras threatened by him. Treaty of perpetual friendship and alliance between the Nizam of Hyderabad and the Nawab of the Carnatic, and for the cession of the Northern Circars to the English, dated 23rd February.

1769.—English treaty with Hyder Ally at Madras. Cartier, Governor of Bengal. Mahratta aggressions in Hindostan. Treaty of perpetual peace and friendship concluded between the English and Nawab Hyder Ally Khan Bahaudur, dated 3rd April. French company's monopoly suspended by French Government.

1770.—Famine in Bengal. Josias Dupré, Governor of Madras. Treaty of peace and friendship concluded between the English and Nawab Hyder Ally Khan Bahaudur of Mysore, dated 8th August. Hyder defeated by the Mahrattas.

1771.—Mahadajee Scindia restores Shah Alum to the throne of Delhi. Engagement of the Rajah of Tanjore for military assistance to the Nawab of the Carnatic, dated 26th October. The monopoly of the French East India Company abolished.

1772.—Warren Hastings, Governor of Bengal. Narrain Row, fifth Peshwa. Janojee, ruler of Nagpore, dies and is succeeded by Sabahjee.

1773.—Warren Hastings holds a secret conference with Shoojah-ood-Dowlah at Benares. Narrain Row murdered. Ragoonath Row, sixth Peshwa. Raghojee Bhonslay, Rajah of Berar. Tanjore captured by the English. Timoor Shah on the throne of Candahar (d. 1793). Payendah Khan Barookzye. Alexander Wynch, Governor of Madras until Dec. 11, 1775.

1774.—Rohilla war. Warren Hastings, first Governor-General. The Calcutta Council; Francis, Clavering, Monson, and Barwell. Creation of a Supreme Court of Judicature at Calcutta. Revolution at Poona.

1775.—Asaf-ood-Dowlah, Nawab Vizier of Oudh (d. 1797). Charge of corruption against Warren Hastings. Execution of Nuncoomar. First Mahratta War. Victory of Colonel Keating at Arras. Treaty between the English at Bombay and Ragoonath Row. Rebellion of Cheit Sing, Rajah of Benares. Run Bahaudur, Maharajah of Nepaul. Lord Pigot becomes Governor of Madras. Sabahjee of Nagpore killed, and succeeded by Raghojee.

1776.—Treaty of Poorundhur. Tanjore restored to the Rajah by Lord Pigot. Treaty entered into by the Rajah of Tanjore, engaging to pay four lakhs of pagodas to the English for the military defence of his country. Lord Pigot ejected from office by the majority of the Council, Aug. 24, and succeeded by Mr. Stratton. Hyder conquers Cochin.

1777.—Orders from the Court of Directors reinstating Lord Pigot, June 11, who, however, has died meanwhile. The four Members of Council concerned in this affair are subsequently tried in England, and fined Rupees 10,000 each. Mr. Whitehill arrives, with the Court's orders, Aug. 31, and takes the Government of Madras provisionally.

1778.—Bombay expedition to Poona. Sir Thomas Rumbold arrives Feb. 8 as Governor of Madras. He quarrels with the Supreme Government. His conduct displeasing to the Directors, particularly his alleged corrupt installation of Seetaram Raj, in the Diwanny of Goontoor. He and the Members of Council finally dismissed by the Directors. He is arraigned before Parliament, after his return to England, but no results follow. Pondicherry taken by Sir H. Munro, Oct. 17. Sunnud from the Rajah of Tanjore, assigning as a jagheer certain lands including Nagore in the district of Munnargoody to the Company, dated 17th June.

1779.—First Mahratta war. Mahé taken. Treaty entered into by Basaulat Jung, of Hyderabad, for the dismissal of the French troops from his service, dated 27th April.

1780.—Great confederacy against the English consisting of the Mahrattas and Mysoreans. English capture Gwalior. Second Mysore war breaks out. Hyder annihilates Colonel Baillie's force. Mr. Whitehill, Acting Governor of Madras for the second time. Runjeet Sing, Viceroy of Lahore. Charles Smith, Governor of Madras. Hyder approaches Madras; but, although he ravages the neighbouring country, he is unable to take it. Expedition to Goozerat.

1781.—Treaty between the English and Nagpore, April 6. Lord Macartney arrives, and assumes the government of Madras, June 22. He captures Sadras, Bimlipatam, Jugganadapooram, Palcole, Porto Novo, Tuticorin, Negapatam and Poolicat. He proposes peace, which Hyder rejects. Flint's defence of Wandiwash. Coote defeats Hyder at Sholinghur and at Porto Novo. Tippoo initiates a number of his English prisoners into Mahomedanism, stupefying them first with drugs. He poisons a number of other officers. Lord Macartney signs the peace with Tippoo, and resigns the Government to the senior civil servant, and proceeds to Calcutta, where he has an interview with the Governor-General, June 18, 1785. Treaty with the Nawab of the Carnatic, recognizing him as the hereditary sovereign of the country. Agreement executed by the Nawab of the Carnatic, assigning its revenues for five years to the British Government, dated 2nd December.

1782.—Close of the first Mahratta war. Nana Farnavis ratifies the Treaty of Salbye. Madhoo Row II, seventh Peshwa (d. 1795). Death of Hyder Ally. Agreement executed by the Rana of Mysore on the restoration of the Hindoo dynasty, dated 27th September. Treaty entered into by the Rana of Mysore for the payment of tribute to the Moghul Emperor and the Mahrattas through the British Government, dated 28th October.

1783.—Siege of Cuddalore by the English; abandoned at the peace. Pondicherry restored to the French by the treaty of Versailles. Goontoor ceded to the English. Death of Sir Eyre Coote. War with Tippoo. Tippoo besieges Mangalore with 100,000 men and 100 guns; the garrison of 1,800 holds out for nine months, and then is forced to capitulate. Fox's India Bill passes the lower house, but is thrown out by the peers.

1784.—Treaty of Mangalore with Tippoo Sultan, on the basis of a mutual restoration of conquests. Mr. Pitt's Bill; the Board of Control, the effect of which is to remove all power from the Company and transfer it to Parliament. Treaty entered into by the Queen Beeby of Cannanore for the payment of tribute to the English, dated 8th January. Treaty of peace concluded with Nawab Tippoo Sultan, dated 11th March. Bussy, Governor of Pondicherry. Austrian East India Company stops business.

1785.—Warren Hastings leaves India. Sir J. Macpherson, Provisional Governor-General. Alexander Davidson (Councillor), Provisional Governor of Madras, June 18. Preliminary Treaty with the Nawab of the Carnatic, assigning territories for the payment of his debts to the Company, dated 28th June. Prince of Wales' Island ceded to the Company.

1786.—Lord Cornwallis, Governor-General. Alexander Davidson, Acting Governor of Madras, superseded by Sir Archibald Campbell, Governor, April 6. The Military Female and Male Orphan Asylums established. Cuddalore taken by the English. English settlement at Penang. Madras Board of Revenue constituted.

1787.—Tippoo Sultan attacks Travancore. Treaty entered into by the Nawab of the Carnatic, agreeing to pay nine lakhs of pagodas towards the military defence of his country, dated 24th February. Treaty entered into by the Rajah of Tanjore, agreeing to pay four lakhs of pagodas towards the military defence of his country, dated 10th April. Fortifications of Fort St. George completed.

1788.—Ghoolam Kadar at Delhi. Agreement concluded with the Rajah of Travancore for stationing two battalions of sepoys in his dominions, dated 12th August. Sunnud of the Nizam of Hyderabad for the surrender of the Goontoor district to the Company, dated 18th September. Impeachment of Hastings. Veeraraja drives Tippoo out of Coorg.

1789.—John Hollond, Councillor, Provisional Governor of Madras, February 7. Succeeded by Edward Hollond in February 1790. Tippoo attacks and overruns Travancore. Agreement executed by the Jagheerdar of Arnee, engaging to fulfil the terms of the Treaty of 1762, dated 20th June. Letter from Earl Cornwallis to the Nizam, assuring him of British protection, dated 7th July.

1790.—Third Mysore war. Triple alliance concluded between the English, the Peshwa, and the Nizam against Tippoo, 1st June. Major-General W. Medows, Commander-in-Chief, becomes Governor of Madras, Feb. 20. He leads the army against Tippoo with varied success, until Marquis Cornwallis takes the command and defeats Tippoo within a year. Peace is established. Sunnuds granted to the Rajahs of Calastry, Cartinaud, and Cotiote, assuring them of independence of Tippoo Sultan, dated 4th May. Agreement executed by the Rajah of Calicut on being invested with the management of the country, dated 27th Sept. Agreement with the Rajah of Coorg, guaranteeing him the independence of his country on his co-operation in the operations against Tippoo Sultan, dated 28th October. Separate agreement executed by Nizam for the aid of British troops from Bengal. French Company abolished 'in toto' by the French National Assembly.

1791.—Treaty executed by the Rajah of Cochin for the payment of tribute to the British Government, dated 6th January. Tippoo sends a letter to the King of France, and a box of scents to the Queen.

1792.—Mahadajee Scindia at Poona. Chinese invasion of Nepaul. Ghoorka treaty with the English. Permanent land settlement in Bengal. Sir Charles Oakeley, Bart., Governor of Madras, Aug. 1. Pondicherry taken, Aug. 23, 1793. Preliminary Treaty with Tippoo Sultan, dated 22nd February. Treaty concluded with Tippoo Sultan for the cession of half his territories, including Coorg (which however did not become British territory till 1834), most of Malabar, the Dindigul and Pulney talooks of the present Madura district, most of the present Salem district, and the Cungoondy talook in North Arcot, and for the payment of three crores and thirty lakhs of rupees, dated 18th March. Circular letter addressed to the Rajahs and Zemindars of the Malabar Coast, informing them of the future Civil and Judicial Administration of the country being vested in the Honorable Company, dated 30th March. Agreement executed by the Rajah of Cooroombranaud for the payment of his revenues to the Collector of Calicut, dated 27th May. Treaty concluded with the Nawab of the Carnatic for garrisoning his country with British troops, dated 12th July. Similar treaty with the Rajah of Tanjore. Agreement executed by the Rajah of Vellatiry in the Malabar Coast, engaging to pay tribute to the British Government, dated 30th July. Engagement executed by the Rajah of Calicut for the payment of revenues to the British Government, dated 18th August. Agreement entered into by the Rajah of Chiracal for the payment of revenues to the Company, dated 12th October. Similar agreements executed by the Rajah of Cartinaud, dated 23rd October, and by the Rajah of Cotiote, dated 29th October. Deed leasing the Island of Chetwye Manapooram to the Rajah of Cochin. Madras Observatory instituted.

1793.—Sir John Shore (Lord Teignmouth), Governor-General. Zemaun Shah succeeds Timoor Shah at Candahar. Agreement entered into with the Rajah of Travancore for the supply of pepper to the Company, dated 28th January. Engagement executed by the Rajah of Coorg for the payment of tribute to the British Government, dated 31st March. Engagement executed by the Princess of Cannanore for the payment of tribute for the Laccadive Islands to the British Government, dated 11th April. Agreement executed by the Queen Beeby of Cannanore for the payment of the arrears of tribute due to the British Government, dated 11th April. Agreement of the Numbiaurs of the Irvernaud district for the payment of revenue to the British Government, dated 14th May. Treaty concluded with the Rajah of Tanjore for garrisoning his country with British troops, dated 11th June. Agreement of the Acheen of Palghaut for the

appointment of Collectors by the Company for the collection of revenue, dated 21st June. Similar engagements executed by the following Malabar Chiefs on the 24th June:—The Rajah of Cooroombranaud, the Rajah of Cotiote, and the Rajah of Peripnaud. Agreement of the Rajah of Cooroombranaud, surrendering the Judicial and Civil Administration of the country to the British Government. Similar agreements entered into by the following Malabar Chiefs:—The Acheen of Palghaut, Rajah of Peripnaud, Nayars of Cowlparah, Manore, Coongar, Yerterra, and Beypore. Engagement of the Zamorin of Calicut for the appointment of Canoongos by the British Government, dated 29th June. Engagement of the following Malabar Chiefs vesting the Company with the Civil and Judicial Administration of the country and the collection of revenue, dated 30th June:—The Nayars of Manore, Coongar, Yerterra, and Cowlparah. Engagement of the Rajah of Beypore for the appointment of Canoongos by the British Government for the collection of revenue, dated 2nd July. Engagement of the Rajah of Beypore vesting the British Government with the Civil and Criminal Administration of the country, dated 6th July. Engagement of the following Malabar Chiefs for the establishment of Small Cause Courts in their country, dated 21st July:—The Acheen of Palghaut, the Nayars of Coongar, Manore, and Yerterra. Agreement of the Rajah of Chiracal for the appointment of Canoongos by the British Government for the collection of revenue of the country. Pondicherry captured.

1794.—Mahadajee Scindia succeeded by Dowlut Row Scindia; war between the Nizam and the Peshwa. Lord Hobart arrives as Governor of Madras, Sept. 7. An expedition fitted out at Madras, aided by His Majesty's squadron, reduces the Dutch settlements at Ceylon, Malacca, Banda, and Amboyna, 1795. Cochin is also taken after an obstinate resistance. Agreement of Numbiaurs of the Irvernaud district vesting the Honourable Company with the management of their country, dated 12th September.

1795.—Battle of Curdla, and subsequent convention by which the Nizam cedes large territories to the Mahrattas. Mahomed Ally, Nawab of the Carnatic dies, and is succeeded by his son Oomdat-ool Oomrah (d. 1801). Bajee Rao II, eighth Peshwa (d. 1853). Revolution at Khatmandoo. Threatened invasion of Zemaun Shah. Treaty of perpetual friendship and alliance concluded with the Rajah of Travancore, dated 17th November. Engagement with the Rajah of Travancore for the payment of a subsidy for British troops employed in his country, dated 17th November. Cochin city and Tungacherry surrendered to Lord Hobart. Dutch settlements in Ceylon captured.

1796.—Treaty concluded with the King of Candy for the building of forts and factories on the island by the English, dated 12th February. Treaty with the King of Candy for the cessions of Colombo and all the Dutch Settlements to the English, dated 15th February. Agreement executed by the Beeby of Cannanore surrendering all her rights to the Company, dated 20th October. Madras light-house erected.

1797.—Saadat Ally, Nawab Vizier of Oude. Rise of Jeswunt Row Holcar. "Mayor's Court" at Madras abolished, its place being taken by the "Recorder's Court." A similar change made at Bombay.

1798.—The Earl of Mornington, Governor-General. Major-General Harris, Commander-in-Chief, Provisional Governor of Madras, Feb. 21. The Earl of Mornington reaches Madras, April 26, and after an interview with the authorities, proceeds to Calcutta. The army is ordered to assemble at Madras. Lord Clive arrives as Governor at Madras, Aug. 21. The Governor-General sends several letters of expostulation to Tippoo, which the latter refuses to answer, although he sends agents to France. Tippoo plants a tree of liberty at Seringapatam, and calls himself "citizen." Fourth Mysore War with Tippoo. The Church Missionary Society instituted at Madras. Agreement entered into with Numbiaurs, of the Irvernaud district, for the payment of revenue to the Company, dated 12th January. Treaties concluded with His Highness the Nizam of Hyderabad for subsidizing permanently a British force, dated 1st September, and for the dismissal of the French troops from his service.

1799.—Storm of Seringapatam and death of Tippoo. The Hindoo dynasty restored at Mysore under Krishna Raj Wodeyar. Tripartite treaty between the Nizam, the Peshwa, and the English for the partition of the territories sequestered from Tippoo Sultan, dated 22nd June. The districts acquired under this treaty by the English are —(1) South Canara; (2) Coimbatore; (3) The Neilgherries; (4) The Oossoor talook of the Salem district; (5) The Vencatagherrycottah talook of North Arcot; and (6) One-third of the Poonganore talook of North Arcot. Treaty with His Highness the Nizam, stipulating that His Highness will not be held responsible for any diminution in the stipends assigned for the maintenance of the late Tippoo Sultan's relations and dependents, dated 22nd June. Treaty concluded with the Rajah of Mysore for subsidizing a British force, dated 8th July. Sunnud granted to the Rajah of Coorg, relinquishing the tribute payable to the British Government, dated 16th October. Engagement executed by the Rajah of Coorg for the above, dated 16th October. The greater portion of Tanjore assigned to the Company.

1800.—Buchanan's travels in Mysore. Malcolm's mission to Persia. Death of Nana Farnavis. Pandy conspiracy at Khatmandoo: flight of Run Bahaudur. Mahmood, Shah of Afghanistaun (d. 1829). Agreement with the Nawab of the Carnatic, ceding the right of collecting certain fees in the province of Tinnevelly to the British Government, dated 26th August. Treaty concluded with His Highness the Nizam of Hyderabad for the cession of territory acquired by His Highness by the Treaty of Mysore for the maintenance of a British subsidiary force, comprising Cuddapah, Kurnool, and Bellary, dated 12th October.

1801.—Omdat-ool Omrah, Nawab of the Carnatic, dies and is succeeded by Azeem-ood Dowlah, who renounces the civil and military government of the Carnatic in favour of the English, and receives a stipendiary provision, July 31. Risings of the Ghilzees in Cabool: suppressed by Futteh Khan. Annexation of part of Oudh. Madras Supreme Court established.

1802.—Bajee Rao and Scindia defeated by Jeswunt Row Holcar. Treaty of Bassein. Mission of Captain Knox to Khatmandoo. French possessions in India restored to the French by the Peace of Amiens, but Lord Wellesley refuses to give them up, and a large French armament sent out for the purpose of re-establishing the French power in India, returns to Europe. Commencement of the Trigonometrical Survey of the Presidency. Treaty of commerce with the Nizam. Vaccine first used in India.

1803.—Lord W. C. Bentinck arrives as Governor of Madras, Aug. 30. Bajee Row restored to Poona. Nizam Ally dies and is succeeded by Secunder Jah. Second Mahratta war. Battles of Assye and Argaum under Wellesley. Battles of Allygurh and Delhi under Lake. Treaty of Anjengaom. Treaty of Deogaum, by which the Nagpore Rajah cedes Cuttack and other territory to the English. Revolution at Khatmandoo. Moghul kings of Delhi become the pensioners of the British Government. Shah Shoojah, Shah of Afghanistaun. A navigable canal opened from Black Town to Ennore river. War with Travancore, arising from misunderstandings with the Diwan. After several fights, peace is restored. Sunnud granted by the British Government, conferring on the Chief of Poodoocottah the fort and district of Kilanelly in recognition of his services to the Honourable Company, dated 8th July. Treaty with the Rajah of Mysore for adjusting an exchange of territory with the British Government, dated 29th December.

1804.—War between the English and Jeswunt Row Holcar. Col. Monson's retreat. Return of Run Bahaudur to Khatmandoo. Downfall of the Pandies. Murder of Run Bahaudur. Massacre at Khatmandoo of the enemies of the Thapas. Ascendency of Bheem Seyn Thapa. Treaty concluded with His Highness the Nizam of Hyderabad for facilitating the operations of British troops employed on military expeditions through His Highness' dominions, dated 9th January. Treaty with the Nizam for the partition of territories conquered from Scindia and the Rajah of Nagpore, 28th April. Similar treaty with the Peshwa, 14th May. The Dutch settlement of Palacolloo transferred to the English.

1805.—Lake defeats Holcar at Deeg and besieges Bhurtpore. Lord Cornwallis, Governor-General, a second time. He dies in October and Sir George Barlow becomes Provisional Governor-General. Submission of Jeswunt Row Holcar. Treaty entered into with the Rajah of Travancore, engaging to pay the British Government an additional subsidy for the maintenance of one more regiment of Native Infantry, dated 12th January. Penang constituted a separate Presidency.

1806.—Mutiny at Vellore and massacre of Europeans; suppressed by Colonel Gillespie. Decision of

the Court of Directors, confirming the grant of the fort and district of Kilanelly to the Chief of Poodoocottah, dated 7th March. Death of Holcar. Sumbulpore and Patna restored to the Nagpore Rajah.

1807.—Lord Minto, Governor-General. Runjeet Sing's aggressions on the Cis-Sutlej states. The Madras Medical Fund established. In consequence of the mutiny at Vellore, Lord W. C. Bentinck is recalled by the Court of Directors, and Sir John Cradock is removed from the command of the Madras Army. William Petrie (Councillor), Provisional Governor of Madras, Sept. 11. A severe hurricane at Madras, Dec. 9. Sir G. Hilaro Barlow, Bart., Governor of Madras, Dec. 24. Treaty entered into by the Rajah of Mysore, engaging to maintain a body of 400 horse, dated 29th January.

1808.—Metcalfe's mission to Runjeet Sing. The Madras Military Fund established. Disaffection amongst the troops, who proceed to acts of insubordination. Lord Minto goes to Madras, and, by judicious measures, quells the rebellion. Disturbances at Travancore, Colonel Macaulay, the British Resident, narrowly escaping with his life.

1809.—Restoration of Mahmood Shah to the throne of Cabool by the Barookzyes. Failure of Mountstuart Elphinstone's embassy to Cabool. Expedition against Amboyna, October. Insurrection in Cochin against the English. Treaty entered into by the Rajah of Cochin, engaging to pay an additional subsidy to the British Government for a Battalion of Native Infantry, dated 6th May. Operations in Travancore under Col. St. Leger; the Diwan commits suicide, and his brother is taken and executed. Mutinous proceedings of the European officers of the Madras Army, fomented by General Macdowall and Col. St. Leger; the latter suspended; the former removed from the command of the Army, but is lost at sea on his way home.

1810.—British occupation of the Mauritius and Java. Expedition against Bourbon, May.

1811.—Mulhar Row Holcar succeeds to the throne of Indore. Depredations of Ameer Khan and of the Pindarries. Lingarajah, ruler of Coorg (d. 1820). Krishnaraj assumes the government of Mysore. Expedition to Java, April. The Ryotwarry system first recognized as the basis of the revenue administration of the Madras Presidency. The Travancore Rajah dies and is succeeded by Lutchmee Ranee.

1813.—Lord Moira (Marquis of Hastings), Governor-General. Ghoorka aggressions on British territory. Nepaulese occupation of British districts. Ghoorka slaughter of British police. Lieut.-Genl. the Hon. J. Abercromby, Commander-in-Chief, Governor of Madras, May 21. The London Missionary Society opens chapels. The Company's Charter renewed for twenty years; exclusive trade with China permitted, but trade with India thrown open.

1814.—Nepaul war. Rt. Hon. Hugh Elliot arrives as Governor of Madras, June 16. The South Indian Mission established.

1815.—The Guicowar of Baroda sends Gangadhar Shastry to Poona. Murder of Gangadhar Shastry. Imprisonment of Trimbucjee Dainglia. St. George's Church, on the Choultry Plain, Madras, finished. The Madras Diocesan Committee of the Society for Promoting Christian Knowledge established. The French possessions in India finally restored. Ceylon conquered and annexed.

1816.—Treaty of Segowlie. Pindarry raids on British territories. Quarrels between Persia and Afghanistaun respecting Herat. Escape of Trimbucjee Dainglia. Improvements of the internal communication in Canara. Treaty with Nagpore, by which the Rajah agrees to subsidize a British force.

1817.—Treaty of Poona. Pindarry war. Bajee Rao repulsed by the English at Kirkee. Flight of the Peshwa from Poona. The Rajah of Nagpore attacks a small British force at Seetabuldee, but is signally defeated. The Rajah ultimately surrenders. Defeat of the Mahrattas at the battle of Mehidpore.

1818.—Defence of Corigam by Capt. Staunton with a small detachment against the Peshwa's entire army, which is repulsed. Extinction of the Peshwa, whose territories fall under the paramount sovereignty of the British Government. Settlement of the Holcar state. Resuscitation of the Raj of Satara. Appah Sahib, Rajah of Nagpore, deposed, and succeeded by Raghojee. Erection of the new Madras Observatory. St. Mary's Church in Fort St. George remodelled and repaired. Great Trigonometrical Survey of India commences.

1819.—Singapore ceded to the English. Azeem-ood Dowlah, Nawab of the Carnatic, dies, and is succeeded by Azeem Jah.

1820.—Metcalfe, Resident at Hyderabad, condemns the bank of Palmer and Co. Chikka Veera Rajah, succeeds Lingarajah at Coorg. Major-Genl. Sir T. Munro arrives as Governor of Madras, June 10. Rebuilding of the Madras light-house completed. Final establishment of the ryotwarry system in the Madras Presidency.

1822.—Scotch Church of St. Andrew's, Madras, finished. Treaty with the Nizam in return for his services in the Pindarry war.

1823.—Mr. Adam, Provisional Governor-General. Lord Amherst, Governor-General.

1824.—First Burmese war: British expedition to Rangoon. Phagyi-dau, King of Burmah. Great road from Madras through the Northern Circars to the Bengal frontier. In 1828, this work discontinued, owing to natural and local obstacles.

1825.—British advance to Prome. Outbreak at Bhurtpore. Azeem Jah dies, and is succeeded as Nawab by Mahomed Ghouse.

1826.—Treaty of Yandaboo with Burmah by which Arakan and Tennasserim are ceded to the British. Crawford's mission to Ava. Capture of Bhurtpore. Dost Mahomed Khan, Ameer of Cabool. Sunnud granted to Shiva Row Ghorepoora, conferring on him the jagheer Sundoor, dated 7th July. Treaty with the Nagpore Rajah, by which he cedes territory for the maintenance of a subsidiary force. Singapore and Malacca incorporated with Penang.

1827.—Dowlut Row Scindia succeeded by Janojee Row Scindia (d. 1843). Sir T. Munro dies of cholera, July 6, 1827. Henry Sullivan Graeme (Senior Councillor), Provisional Governor of Madras, until the Right Hon. Stephen Rumbold Lushington arrives as Governor, Oct. 18, 1827.

1828.—Lord William Bentinck, Governor-General. Formation of a road from Madras to Bangalore.

1829.—Military road through Coorg. The bar of the Cooum river partially opened to obtain sea-water by filtration. The Nizam Secunder Jah dies, and is succeeded by Nazir-ood Dowlah. The annual payment to the Nizam for the Northern Circars commuted for one sum. The British Government ceases to interfere in the administration of Hyderabad. Treaty of 1826 with Nagpore modified, and the ceded territory restored. Assumption of the direct management of Mysore by the British Government on account of the misgovernment of the Rajah. The Travancore Rajah attains his majority and assumes the Government.

1832.—Disturbances in Jeypore. Major-General Sir Frederic Adam assumes the Government of Madras, Oct. 25. Great distress in the districts.

1833.—Civil wars stopped at Gwalior and Indore by British intervention. Hary Row Holcar on the throne of Indore. Renewal of the East India Company's charter for another twenty years. The Company cease to trade, and become solely governors of India and administrators of its revenue. Goontoor famine.

1834.—The Maharajah of Jeypore poisoned. Proclamation of war with Coorg, dated 15th March. Proclamation issued annexing the Coorg State to the British Provinces, dated 7th May. Abolition of corporal punishment in the native army. Natives first admitted to the magistracy.

1835.—Murder of Mr. Blake in Jeypore. Sir Charles Metcalfe, Provisional Governor-General. Agricultural and Horticultural Societies established.

1836.—Lord Auckland, Governor-General. Madras Chamber of Commerce established. Sir F. Adam resigns and embarks for England, March 4, 1837. Khond rising in Ganjam.

1837.—Mr. G. E. Russell, Acting Governor of Madras. The Shah of Persia marches against Herat. Siege of Herat. Revolution at Ava. Tharawaddy, king of Burmah. Fall of Bheem Seyn Thapa at Khatmandoo. Lord Elphinstone arrives as Governor of Madras, March 6. The order of "British India," for the decoration of Native officers, established. Insurrection in Canara; some sepoys killed in the retreat on Mangalore. A Bombay ship passing near, affords relief to the persons confined within the Fort of Mangalore. The insurrection suppressed. A gang of thugs caught near Dharwar. The Boat Monopoly at Madras abolished. Wars in Afghanistaun and China. The Sailors' Home, Madras, established.

1838.—The Shah of Persia raises the siege of Herat. Lord Auckland declares war against Afghanistaun. British advance to Quetta.

1839.—British capture Candahar, Ghuznee, and Cabool. Russian expedition to Khiva. Death of Runjeet Sing. Tragedies at Khatmandoo. Death of Bheem Seyn Thapa. Kharak, Maharajah of Lahore (d. 1840). Dethronement of the Rajah of Sattara. The Vizagapatam and Ganjam Agencies instituted.

1840.—British occupation of Cabool. The British Residency expelled from Ava. Lord Auckland remonstrates with the Maharajah of Nepaul. Now Nihal Sing, Maharajah of Lahore. Madras troops embark for China, April 13. The ship 'Golcondah,' with head-quarters of the 37th Madras N.I., lost at sea.

1841.—Withdrawal of Major Todd, the British Resident, from Herat. Insurrection at Cabool: murder of Sir Alexander Burnes. General reconciliation at Khatmandoo. Dhiaun Sing places Sher Sing on the throne of Lahore. The Madras University opened by Lord Elphinstone in College Hall, April 14. The ship 'Ferguson,' from Sidney, with a portion of H.M.'s 50th Regt. on board lost at sea. Severe storm at Madras, May 16. The 37th Regt. raised to the rank of a Grenadier Regiment for its gallantry in China. Sunnud granted to Vencat Row Ghorepadde on his accession to the musnud of Sundoor, dated 12th January.

1842.—Destruction of the British army in the Khyber Pass. Sale's defence of Jellalabad. Lord Ellenborough, Governor-General. Pollock's advance to Jellalabad. British advance on Cabool. Battle of Tezeen. Murder of Stoddart and Conolly at Bokhara. Disturbances at Khatmandoo. Slight mutiny in the Deccan; a company of 52nd Regt. refuse their pay. The Marquis of Tweeddale arrives and takes the government of Madras, Sept. 24. Great fire in Black Town. Storm at Madras, Nov. The 'Hindostan' first Peninsular and Oriental Steamer arrives at Madras, Dec.

1843.—Jayajee Row Scindia, Maharajah of Gwalior. Disturbances at Gwalior. Battles of Maharajpore and Punniar. Matabar Sing overthrows the Panthays at Khatmandoo. Assassination of Dhiaun Sing and Sher Sing at Lahore; Dhooleep Sing, Maharajah. The first Madras Europeans raised to the rank of a Fusilier corps. Memorials transmitted to London for steamers to Madras and Bengal. Scinde conquered by Sir Charles Napier.

1844.—Settlement of Gwalior affairs. Irregular installation of Tookajee Row Holcar at Indore. Lord Hardinge, Governor-General. Crisis at Lahore. Mutiny of the 47th Regt. on board the 'John Line,' when going to Bombay to embark for Aden. The Wesleyan and American Missionaries open chapels. The members of the Free Church constitute themselves a Presbytery, March 13. The Lutheran and German Missionaries begin their labours.

1845.—Paugan Meng, King of Burmah. Murder of Matabar Sing. Sikh army of the Khalsa invades British territory: first Sikh war. Battles of Moodkee, Firozeshah and Aliwal. Pier projected at Madras. Disturbances in the Northern Circars, and troops sent to suppress them. Protestant Collegiate Institution established. Tranquebar and the other Danish settlements in India transferred to the Company by the King of Denmark for the sum of 12,50,000 rupees.

1846.—Massacre at Khatmandoo. Jung Bahaudur, prime minister. Battle of Sobraon. Close of the first Sikh war. Jummoo and Cashmeer sold to Goolaub Sing. Temporary British occupation of the Punjaub. Serious disturbances in the Cuddapah District. Troops sent to put them down. Death of the Travancore Rajah, who is succeeded by Martanda Vurmah.

1847.—Goomsoor much disturbed, and Meriahs, or human sacrifices, attempted. Troops arrive to produce quiet. The Supreme Court disclaims jurisdiction over the acts of the Company's servants out of Madras. Disturbances in the Golcondah districts. The Marquis of Tweeddale resigns and sails from Madras, Feb. 23. Tranquebar Danish Mission handed over to the Lutherans.

1848.—Lord Dalhousie, Governor-General. Disaffection of Moolraj, Viceroy of Mooltaun. Treachery and murder at Mooltaun. Successes of Herbert Edwardes. Second Sikh war. Revolt of Sher Sing. The Sikhs joined by Afghans. Lapse of Sattara to the British Government. Henry Dickinson (Senior Councillor) takes the Government of Madras provisionally. Sir Henry Pottinger, Bart., arrives as Governor, April 7. The Moplahs break into insurrection near Calicut, and are defeated. The Bunganapully jagheer restored to Houssain Ally Khan. The Beeby of Cannanore's lands attached for arrears of peshcush.

1849.—Battles of Chillianwalla and Goozerat. Annexation of the Punjaub. Sunnud granted to the Jagheerdar of Bunganapully, renewing to him and his heirs the rights and privileges conferred by the British Government for the administration of the jagheer, dated 20th March.

1851.—Mission of Commodore Lambert to Rangoon. Second Burmese war. Meng-don Meng, king of Burmah. Nomination of a Commission to enquire into the state of Public Works in the Madras Presidency, Feb. 18. The Governor-General requires the Nizam to give up to the management of the Resident at Hyderabad a portion of his territories, yielding annually Rupees 36,00,000, until the debt due to the Company is fully liquidated.

1852.—Madras East Indian Emigration Society formed, Jan. 3. Rangoon captured, April 14. The 1st Madras Fusiliers and the Sappers and Miners embarked at Madras for Rangoon, Sept. 7. Defence of Pegu by Major Hill, 1st Fusiliers, against the attack of the Burmese, Dec. 5–14. Pegu annexed, Dec. 20.

1853.—Sir John Lawrence, Chief Commissioner of the Punjaub. Annexation of Nagpore. Cession of Berar to the British Government. Colonel Low, C.B., appointed Resident at Hyderabad, Jan. 1. Defeat of Burmese by Captain Rennie near Lamena, Jan. 30. Rangoon and Bassein declared free ports, Feb. 1. Expedition of Captain Locke against Donabew, Feb. 2. Mahomed Hajee Khan acknowledged Nawab of Bhawulpore, 19. Brigadier Mayne arrives at Arcot from Hyderabad to command a Field Force assembled in reference to an apprehended insurrection, and captures 112 Rohillas at Padona, Feb. 27. General Steele disperses Myatoon's force near Donabew, March 17—19. Installation of the Cochin Rajah, May 16. Opening of the Railway Works at Madras, June 9. Peace with Ava proclaimed, July 21. Overflowing of the Godavery causes great distress, and a suspension for several days of all communication between that part of the country and Madras, Aug. 11. Terrible inundation at Goontoor, Aug. 27. Bajee Row, a rebel Zemindar, defeated and taken prisoner by Major Mayne, near Aurungabad, Oct. 8. Moplah disturbance on the Malabar Coast, Oct. Affair between a portion of the Hyderabad Contingent and a body of Arabs at Jeswunt Peora, Nov. 15. Salar Jung becomes Minister to the Nizam. Lapse of the Nagpore State to the British Government on the death of Raghojee without heirs, Dec. 11.

1854.—Reorganization of the Hyderabad Contingent carried into effect, Jan. 1. Epidemic among the Badagahs in the Neilgherries, Jan. Affray between a Squadron of the 4th Nizam's Cavalry under Lieutenant Fraser and the Arabs, Jan. 29. Nagpore declared a Fief of the Company, Feb. 18. Ganges Canal opened, April 8th. Sir Henry Pottinger's resignation and embarkation, April 24. Honorable D. Elliott, Provisional Governor of Madras for four days. Right Honorable Lord Harris, Governor, April 28. Commencement of the Company's New Charter, May 1. First Meeting of the Legislative Council, May 20. Exhibition of Agricultural produce established throughout the Provinces, July 14. College of Fort St. George abolished, July 21. Frontier duties between the Nizam's and British territories abolished, Aug. 8. Death of Azeem Ool Nissa Begum, Aug. 23. Appointment of the Commission to enquire into the existence of Torture, Sept. 15. Affray between Brigadier Mayne's force and the rebel Rohillas near Aurungabad, Sept. 21. Arrival of General Anson to command the Madras Army, Sept. 23. Substitution of the Bengal for the Madras Import Tariff, and introduction of uniform cheap postage, Oct. 1. Seizure of the Nagpore Ranee's jewels and consequent riot, Oct. 11. Serious rice riots in Madras, Nov. 9 and 10. Walter Elliott sworn in as Member of Council, Dec. 16. Government current records thrown open to the public. The Laccadives brought under British management, but shortly afterwards restored to the Beeby of Cannanore. Famine in Bellary.

1855.—Outbreak of hill-tribes, Koles and Santauls. English alliance with Dost Mahomed Khan. Sir Henry Montgomery sworn in as Member of Council in the room of the Hon'ble Mr. Thomas, Feb. 19. Uncovenanted Civil Engineers appointed, Feb. 21. Swinging festival at Nellore abolished, March 6. Cholera at Jaulna, March. Mr. A. J. Arbuthnot appointed Director of Public Instruction, March 15. Moplahs in Malabar disarmed by Mr. Conolly; 7,500 war knives collected, March 30. First Locomotive for the Madras Railway landed, June 14. Madras Medical College recognized by the Royal College of Surgeons, Aug. 9. Mahomed Ghouse, titular Nawab of the Carnatic, dies without issue, and the title is abolished, liberal provision being made for the family, Oct. 7. Death of Sivajee, Rajah of Tanjore, without heirs, and extinction of the titular dignity, Oct. 30.

1856.—Annexation of Oudh. Lord Canning, Governor-General. Persian war. Capture of Busheer and battle of Mohamrah. Opening of the first Nor-

mal school in Madras, March 6. Agricultural Exhibition opened at Madura, April 8. Disturbances in Kimedy, and troops ordered there, April 24. News received in Madras of the abolition of the Carnatic Musnud, and of the pensioning of Azeem Jah and family, May 3. Order issued stopping the execution of public works, May 9. Inaugural ceremony on the opening of the Madras Railway, June 28. Mr. Horsley murdered at Bellary, July 10. Rajah of Tanjore's troops disbanded, Oct. 3. Tanjore Fort taken possession of by the Company, twelve months after the death of Rajah Sivajee without male heirs, Oct. 18. Shenkara Warrier, the Diwan of Cochin, dies Oct. 21. Emigration of coolies to Mauritius prohibited by the Governor-General, Oct. 24. Nawab of Carnatic's troops disbanded, Oct. 27. Appointment of 18 Uncovenanted Deputy Collectors in Madras, Nov. 13. War proclaimed against Persia, Nov. 13. Forest Conservancy department for the Madras Presidency announced with Dr. Cleghorn as chief, Dec. 1. Capture of the Kimedy rebel chief Doonda Sheenah, Dec. 25.

1857.—Mutiny at Barrackpore. Outbreak of Mangal Pandy, March 29. Mutiny at Lucknow, May 3. Mutiny at Meerut, May 10. The rebels at Delhi, May 11. Death of the Nizam of Hyderabad, May 17, succeeded by Afzool ood Dowlah. Mutiny at Lucknow, May 30. Mutiny at Cawnpore, June 4. Massacre at Jhansee, June 5. Nana Sahib at Cawnpore. The massacre on the Ganges, June 27. Coronation of Nana Sahib as Peshwa, July 1. Advance of Havelock towards Cawnpore, July 7. Volunteer Corps Act passed, July 9. Massacre of women and children at Cawnpore, July 15. Battle of Cawnpore, July 17. General insurrection in Oudh, July 17. Death of Sir Henry Lawrence, July 17. Barnard's advance to Delhi, July 17. Residency at Hyderabad attacked by Rohillas, July 17. Mutinous conduct of 8th Madras Light Cavalry, Aug. 18. Capture of Delhi, Sept. 20. General Grant assumes the command in Bengal, June 17. Arrest of the king; the two princes shot, Sept. 21. Madras Government authorize the formation of a Volunteer Rifle Corps in Madras, July 22 Relief of the Residency at Lucknow by Havelock and Outram, Sept. 25. Death of General Neill, Sept. 26. Fourteen inches of rain in Madras on one day, Oct. 25. Second relief by Sir Colin Campbell, Nov. 23. Death of Havelock, Nov. 24. Defeat of the Gwalior rebels, Nov. 24. 8th Madras Light Cavalry broken up, Dec. 8. The Nizam dies and is succeeded by his son Afzool-ood-Dowlah.

1858.—Trial and transportation of Bahaudur Shah, King of Delhi. Lord Clyde's campaign in Oudh and Rohilcund. Outram captures Lucknow. Scindia defeated by the Gwalior rebels. Hindostany fanatics driven out of Sitana. Lord Canning's durbar at Agra. Jhansee taken by Sir Hugh Rose, April 5. Banda occupied by General Whitlock, April 19. Occupation of Bareilly, May 8. Rajah of Shorapore sentenced to transportation for life but shoots himself with a revolver on the road from Secunderabad to Chingleput, May 11. Calpee stormed, May 23. Battle of Coonch, May 29. Ranee of Jhansee killed at Jowrah, June 21. Lord Palmerston's India Bill. Mr. Disraeli's India Bill. Government of India transferred from the East India Company to the Crown, by Lord Stanley's Bill, and the Government vested in a Secretary of State, and a Council of fifteen, Aug. 2. Directors authorize appointment of Inam Commission, Madras. Branch line of Railway to Bangalore sanctioned by the Directors, Aug. 20. Tantia Topee crosses the Nerbudda, Oct. 31. Queen's Proclamation, announcing the assumption of the Government of India, Nov. 4. Riots at Tinnevelly in consequence of the resistance offered by a mob to the corpse of a Native Christian passing along the street. Revenue Settlement Department of the Madras Presidency constituted. Formation of Madras Public Works Department.

1859.—Lord Clyde reports that the rebellion in Oudh is at an end, Jan. 7. Forty Uncovenanted Deputy Collectors appointed for various districts in Madras, March 25. Sir Charles Trevelyan, Governor of Madras, March 28. Tantia Topee captured by Major Meade, April 8, and hanged, April 18. General day of thanksgiving throughout India for restoration of peace, July 28.

1860.—Mr. Wilson announces an Income tax, License tax, and Tobacco tax, in the Legislative Council, Feb. 18. Introduces a Currency Bill, March 3. Title of Rajah Bahaudur and a small territory in Sattara, conferred on the adopted son of the late Rajah of Nagpore, March 30. Lord Elphinstone retires from the Governorship of Bombay, May 16. Sir Charles Trevelyan recalled, June 8. Honorable W. Morehead, Provisional Governor of Madras, June 8 to July 5. Sir Henry Ward, Governor of Madras, July 5. Income tax comes into operation, Aug. 1. Sir Henry Ward dies of cholera, Aug. 2. Honorable W. Morehead, Provisional Governor, Aug. 3. Right Honorable James Wilson dies at Calcutta, Aug. 11. Passing of the Bill for abolishing local European Army in India, Aug. 16. Rajah of Travancore dies, Aug. 18. Mutiny of the 5th Bengal Europeans, Sept. 21. Order issued by Sir Patrick Grant, Commander-in-Chief of the Madras Army, for disbanding the 5th, 6th and 7th Regiments of Light Cavalry, and reducing the strength of the Infantry Regiments, Oct. 20. Pepper monopoly abolished by the Travancore Government, Nov. 27. Treaty with the Nizam by which his debt to the English is cancelled, and Bhadrachellam and Rekapully talooks are ceded by the Nizam, Dec. 26. Cinchona first introduced in India.

1861.—Famine in Travancore. Introduction of Mr. Laing's Currency Bill into the Governor-General's Legislative Council, Feb. 16. Arrival of Sir William Denison in Madras, as Governor, Feb. 18. Foundation Stone of the Memorial Hall laid in Madras, to commemorate the fidelity of the Madras sepoy army during mutiny, Feb. 18. Special Commission appointed by the Supreme Government to consider Army Amalgamation Scheme forwarded by Secretary of State, Feb. 27. Departure of Sir Patrick Grant, Commander-in-Chief, Feb. 27. Royal Proclamation creating the Order of the Star of India, July 5. Bill to enable Banks of Bengal, Madras, and Bombay to undertake the issue, &c., of Paper Currency Notes and certain business hitherto transacted at Government Treasuries, passes Legislative Council, Aug. 31. Proclamation of the Governor-General (Lord Canning) as to the new Councils (Legislative), Nov. 16. The Central Provinces constituted, Nov. Martanda Vurmah of Travancore dies, and is succeeded by Rama Vurmah. Madras Pier opened, Dec. 1.

1862.—Lord Elgin, Viceroy. Sir Arthur Phayre, Chief Commissioner of British Burmah, concludes a treaty with the King of Burmah. Penal Code comes into operation, Jan. 1. Provisions of the Indian Councils Act, 1861, brought into operation, Jan. 14. New Legislative Council assembles for the first time at each of the three Presidencies, Jan. 22. Reversion of the Saugor and Jubbulpore territories to the Government of Madras from that of Bengal, Feb. 8. License tax abandoned, Feb. 21. New Paper Currency Bill comes into operation, March 1. Great South of India Railway opened to Trichinopoly, March 11. Sunnud conferring the right of adoption granted to the following Hindoo Chiefs in the Madras Presidency:—Bunganapully, Cochin, Poodoocottah, Sundoor, and Travancore, all dated 11th March. Model Jail at Ootacamund completed, March 14. Restoration to the Ranees of Tanjore of their property, March 28. District of North Canara, with the exception of Coondapore talook, transferred to Bombay, April 16. Madras Railway opened to Beypore, May 13. Severe thunderstorm at Madras, May 27. Financial Minute by the Government of India abolishing certain distinctions between the Covenanted and Uncovenanted Branches of the Service, May 27. The Rajah of Cochin receives in Durbar the communication of Government allowing the right of adoption in his Family, June 21. Import and export duties raised in Travancore, Aug. 6. Abolition of the Supreme and Sudder Courts and formal opening of the Madras High Court, Aug. 16. Succession in Hyderabad State guaranteed.

1863.—The Sitana campaign. The Bhootan mission. Death of Dost Mahomed Khan. First Criminal Sessions of the High Court opened, Jan. 6. Resolution of Government to make Hyderabad the terminus of the Bombay and Madras Railways, March 26. Department of Public Works, Madras, reorganized, May 1. Abolition of the Indian Navy, May 1. Sir W. Denison proposes the abandonment of the Grand Jury system, July 14. Madras Pier taken charge of by Government, Nov. 1. New building for the Revenue Board office sanctioned, Nov. 2. Death of Lord Elgin at Dhurramsala, Nov. 20. Sir W. Denison embarks for Calcutta to assume office of Governor-General, Nov. 26. Mr. Edward Maltby appointed Acting Governor of Madras, Nov. 26. Sir W. Denison assumes office of Governor-General, Dec. 2.

1864.—Sher Ally Khan recognized by the British Government. Bhootan war. Sher Ally treacherously imprisons his brother Afzal Khan. Sir John

Lawrence, G.C.S.I., G.C.B., assumes charge of the office of Governor-General, Jan. 12. The Whipping Bill becomes law as Act VI of 1864, Feb. 18. Introduction of "Budget," April. Abolition of the License-tax and the diminution of the Income-tax and decrease of Customs duties, April. Revised code of rules for regulating Grants-in-aid towards education comes into operation. Cyclone at Masulipatam, Nov. 1. The Rajah of Cochin dies and is succeeded by the present ruler, Rama Vurmah.

1865.—Indo-European Telegraph, viâ Persia and Turkey, opened, Feb. 8. Opening of the line between Arconum and Conjeeveram projected by the Indian Tramway Company, Sept. 30. The Rajah of Mysore adopts Chama Rajendra Wodeyar, the adoption being finally recognized by the English Government. Famine in Madras.

1866.—Flight of Sher Ally to Candahar: Afzal Khan proclaimed Ameer. Partition of Afghanistaun. Sir John Lawrence recognizes Afzal Khan and Sher Ally Khan. Departure of Sir W. Denison, March. Arrival of Lord Napier as Governor of Madras, March 27. Commencement of a great famine in Orissa, Ganjam, &c., April.

1867.—Sher Ally defeated by Azeem Khan; his flight from Candahar to Herat. Death of Afzal Khan: accession of Azeem Khan. General Fytche, Chief Commissioner of British Burmah, concludes a treaty with the king of Burmah. Extradition treaty with the Nizam. Title of Prince of Arcot conferred on Azeem Jah, uncle of the last Nawab of the Carnatic.

1868.—Sher Ally recovers the throne of Afghanistaun. Death of the Mysore Rajah, March 27. Foundation Stone of the new Madras University and Senate House laid by Lord Napier, May 23. The "Biden Home" opened, Dec. 12. Lord Mayo, Viceroy.

1869.—The Umballa conference. Visit of H.R.H. the Duke of Edinburgh to India. Arrival of Lord Mayo at Calcutta, Jan. 12. The Nizam dies and is succeeded by his son Meer Mahboob Ally Khan, the present Nizam, Feb. 26. The Nicobar Islands annexed. Armament of Fort St. George reduced and re-arranged.

1870.—Duties of Government conducted at Ootacamund. First Council meeting there, July 8. Last Council meeting, Sept. 23.

1871.—Mutiny of the 19th Regiment Madras Native Infantry, Feb. Towns Improvement and Local Funds Acts passed, March 28. Income Tax Act comes into force, April 1. Preliminary census taken throughout the Presidency and Town of Madras, Sept. Final census, Nov. 14.

1872.—Earl of Mayo assassinated at Port Blair, Andaman Islands, Feb. 8. Lord Napier proceeds to Calcutta to assume office of Governor-General, Feb. 19. Sir A. J. Arbuthnot, acting Governor of Madras, Feb. 19. Assumption of office of Governor of Madras by Lord Hobart, May 15. Lord Northbrook, Viceroy. Burmese embassy to Her Majesty the Queen.

1873.—Madras Water Works (Town Scheme) opened to the public, Jan. 31. First meeting of Madras Legislative Council, Session 1873, Feb. 21. Madras Civil Courts Act comes into force, March 1. Publication of Manuals of Districts ordered by Government, March 14. Indian Income-tax abolished, March 31. Resolution passed by the Government of India for the extension of Mahomedan education, June 14.

1874.—Appointment of a Crown Prosecutor for Madras, March 31. Appointment of Honorary Magistrates forming benches of justices in Mofussil Towns determined upon by Government, July 30. Political charge of Poodoocottah transferred to the Collector of Trichinopoly. Azeem Jah, Prince of Arcot, dies and is succeeded by Zaheer-ood Dowlah.

1875.—Honorary Magistrates for the Presidency appointed, Feb. 16. Mr. Parkes' Harbour Scheme for Madras sanctioned by Secretary of State, March 6. Death of Lord Hobart, April 27. Hon'ble W. Robinson, provisional Governor of Madras. High Courts Procedure Bill comes into operation, May 1. Madras Harbour Works commenced, Aug. 3. South Indian Railway Line from Trichinopoly to Madura opened, Sept. 1. Assay Office in Madras ordered to be abolished, Nov. 3. Duke of Buckingham and Chandos assumes office as Governor of Madras, Nov. 23. Arrival at Madras of the Prince of Wales, Dec. 13. Administration of the Laccadives assumed by the British Government.

1876.—Lord Lytton, Viceroy. Railway Line from Tinnevelly to Madura opened, Jan. 1. Opening of the South Indian Railway between Madras and Tindivanam, Sept. 1. Famine reported in Bellary, Cuddapah, and Nellore, Oct. 12. Agricultural College at Sydapett opened, Nov. 20.

1877.—Imperial Assemblage at Delhi on the 1st of January 1877: proclamation of Her Majesty Queen Victoria as Empress of India. Death of Jung Bahaudur.

1878.—Sher Ally rejects a British mission. Declaration of war against Afghanistaun. Establishment of the Order of the Crown of India, Jan. 1. Madras Municipal Act passed in Council, Feb. 13. Famine Census of Madras Presidency taken, March 13. Famine Commission appointed, April 15. Extension of Madras Irrigation Company's Canal to Railway Station at Cuddapah, April 25. Extension of South Indian Railway to Madras Town, July 30. The Maharajah of Vizianagram dies, and is succeeded by his son Ananda Raz, the present Maharajah.

1879.—Death of Sher Ally. Accession of Yakoob Khan. Attack on the British Residency at Cabool; massacre of the English mission. British occupation of Afghanistaun. Madras Municipal Act comes into operation, Jan. 1. Star of India investiture, Jan. 1. New Stamp Act came into operation, April 1. Death of Prince of Arcot, June 16; he is succeeded by Intilzaum-ool-moolk, the present Prince. South Indian Railway Line opened to Tanjore, July 1. Pondicherry Railway opened, Dec. 15. Three batteries erected on the Madras beach, each to contain two 12-ton guns. The Rumpa disturbances in Godavery. The Godavery Agency constituted.

1880.—Death of the Maharajah of Travancore, May 30. Lord Ripon, Viceroy. General Roberts appointed Commander-in-Chief, Madras Army, Sept. 5. South Indian Railway Line from Chingleput to Conjeeveram formally opened, Dec. 16. Arrival of Mr. W. P. Adam at Madras as Governor, Dec. 18. The Travancore Rajah dies, and is succeeded by the present ruler, Rama Vurmah. The Rumpa rising suppressed.

1881.—Opening of Mysore State Railway, Feb. 1. Census of British India taken, Feb. 18. Installation of the Maharajah of Mysore, March 25. Death of Mr. W. P. Adam, May 24. Mr. Hudleston temporarily assumes office of Governor of Madras. The Right Hon'ble M. E. Grant Duff appointed Governor of Madras, June 24.

1882.—First Sitting of Educational Conference at Calcutta, Feb. 10. Railway Line opened between Mysore and Bangalore, Feb. 25. Abolition of Import duties, March 11. Post Office Savings' Banks established in India, April 1. Orders issued for the re-organization of the Indian Army, April 25. New Civil Procedure Code comes into operation, June 1. New organization scheme of the Indian Army comes into operation, July 1. Riots at Salem between Hindoos and Mahomedans, July 28. Principal rioters sentenced to imprisonment and transportation, Oct. 21.

1883.—Death of Sir Salar Jung, Feb. 8. Introduction into Viceroy's Council of Mr. Ilbert's Native Magistrates' Jurisdiction Bill, Feb. 9. Publication of Famine Code, Oct. 30. Madras Municipal Bill passed by Madras Legislature, Dec. 4. Foundation Stone of Madras Town Hall laid by the Maharajah of Vizianagram, Dec. 17.

1884.—Lord Ripon at Madras, Jan. 31. Installation of the Nizam at Hyderabad, Feb. 5. New drainage works at Royapooram opened, June 30. Government order granting a pardon to all prisoners in connection with the Salem riots, Oct. 27. Cyclone at Madras; Red Hills Tank breached, Nov. 20. Lord Dufferin lands at Bombay, Dec. 8.

APPENDIX No. XLI.

LIST OF GOVERNORS-GENERAL OF INDIA AND GOVERNORS OF MADRAS.

(a) Governors-General of India; styled Administrators prior to the Regulating Act of 1773.

Names.	Year of entering office.	Names.	Year of entering office.
Alexander Dawson	1748	Earl of Minto	1807
William Fytche	1752	Earl Moira (Marquis of Hastings)	1813
Roger Drake	1756	Earl Amherst	1823
Colonel Robert Clive	1759	Lord W. Bentinck	1828
Henry Vansittart	1761	Lord Auckland	1836
John Spencer	1765	Lord Ellenborough	1842
Lord Clive (second time)	1765	Sir H. (Lord) Hardinge	1844
Harry Verelot	1767	Earl Dalhousie	1848
John Cartier	1769	Lord Canning	1856
Warren Hastings	1774	Lord Elgin	1862
Sir J. M'Pherson	1785	Sir John Lawrence	1864
Earl (Marquis) Cornwallis	1786	Earl of Mayo	1869
Lord Teignmouth (Sir J. Shore)	1793	Lord Northbrook	1872
Earl of Mornington (Marquis Wellesley) ..	1798	Lord Lytton	1876
Marquis Cornwallis	1805	Marquis of Ripon	1880
Sir G. Barlow	1805	Earl of Dufferin	1884

(b) Governors of Fort St. George.

Names.	Assumed charge of office.	Made over charge.	Remarks.
Mr. Aaron Baker ...	———1652	......	Mr. Baker was at first "Agent" for the settlement of Madras, which was under the jurisdiction of the Presidency of Bantam in Java, from its foundation in 1639 till it was itself created a Presidency in 1653. In 1658 the settlements in Bengal were subordinated to Madras, and so remained till 1681.
Sir Thomas Chamber	———1659	......	
Sir Edward Winter ...	———1661	Aug. 22, 1668	
Mr. George Foxcroft...	Aug. 22, 1668	———1670	Three months after his arrival with a commission to supersede Sir E. Winter, Mr. Foxcroft was on a charge of disloyalty, put into confinement by Sir E. Winter, who resumed office and retained it till the 22nd August 1668, when Mr. Foxcroft was released and reinstated by Commissioners from England.
Sir William Langhorn, *Bart.*	———1670	Jan. 27, 1678	
Mr. Streynsham Master.	Jan. 27, 1677	July 3, 1681	
Mr. William Gyfford...	July 3, 1681	July 25, 1687	By the Company's Commission, dated 14th November 1681, received 17th July 1682, the Bengal Agency was made a Government "without any subordination to Fort St. George."
Mr. Elihu Yale ...	July 25, 1687	Oct. 3, 1692	Mr. Yale also acted during Mr. Gyfford's absence in Bengal, from 8th August 1684 to 26th January 1685.
Mr. Nathaniel Higginson.	Oct. 3, 1692	July 7, 1698	
Mr. Thomas Pitt ...	July 7, 1698	Sept. 18, 1709	
Mr. Gulston Addison ..	Sept. 18, 1709	......	Died at Madras on the 17th October 1709.
Mr. Edmund Montague.	Oct. 17, 1709	Nov. 3, 1709	Acting Governor.
Mr. William Fraser ...	Nov. 3, 1709	July 11, 1711	Acting Governor.
Mr. Edward Harrison.	July 11, 1711	Jan. 8, 1717	
Mr. Joseph Collet ...	Jan. 8, 1717	Jan. 18, 1720	
Mr. Francis Hastings.	Jan. 18, 1720	Oct. 15, 1721	Acting Governor.
Mr. Nathaniel Elwich.	Oct. 15, 1721	Jan. 15, 1725	
Mr. James Macrae ...	Jan. 15, 1725	May 14, 1730	
Mr. George Morton Pitt.	May 14, 1730	Jan. 23, 1735	

(*b*) *Governors of Fort St. George*—(Continued).

Names.	Assumed charge of office.	Made over charge.	Remarks.
Mr. Richard Benyon...	Jan. 23, 1735	Jan. 17, 1743	
Mr. Nicholas Morse ...	Jan. 17, 1743	......	Madras having been captured by the French on the 10th September 1746, the government of the settlement devolved on Mr. John Hinde, the Deputy Governor of Fort St. David.
Mr. John Hinde ...	......	......	Mr. Hinde died at Fort St. David on the 14th April 1747 previous to the receipt of the Court of Directors' Despatch of 24th January 1747, creating Fort St. David the head settlement and appointing Mr. Hinde President and Governor.
Mr. Charles Floyer ...	April 16, 1747	......	The Court's Despatch ordering Mr. Floyer's dismissal from the service was received at Fort St. David on the 6th July 1750.
Mr. Thomas Saunders.	Sept. 19, 1750	Jan. 14, 1755	The seat of Government was re-established at Madras on the 5th April 1752, four years after its restoration to the English by the treaty of Aix-la-Chapelle.
Mr. George Pigot ...	Jan. 14, 1755	Nov. 14, 1763	
Mr. Robert Palk ...	Nov. 14, 1763	Jan. 25, 1767	
Mr. Charles Bourchier.	Jan. 25, 1767	Jan. 31, 1770	
Mr. Josias DuPre ...	Jan. 31, 1770	Feb. 2, 1773	
Mr. Alexander Wynch.	Feb. 2, 1773	Dec. 11, 1775	
Lord Pigot	Dec. 11, 1775	......	Governor for the second time. By order of Mr. George Stratton and the majority of Council he was placed under arrest and detained at St. Thomas' Mount on the 24th August 1776. He was allowed to return to the Madras Garden House on the 28th April on account of the state of his health and died there on the 10th May 1777.
Mr. George Stratton...	Aug. 23, 1776	Aug. 31, 1777	Suspended from the service.
Mr. John Whitehill ...	Aug. 31, 1777	Feb. 8, 1778	Acting Governor.
Sir Thomas Rumbold.	Feb. 8, 1778	April 6, 1780	
Mr. John Whitehill ...	April 6, 1780	Nov. 8, 1780	Acting Governor second time. Suspended by the Governor-General and Council under Section IX of the Regulating Act.
Mr. Charles Smith ...	Nov. 8, 1780	June 22, 1781	Acting Governor.
Lord Macartney ...	June 22, 1781	June 8, 1785	Embarked for the northern ports and Bengal on the 4th June 1785, and resigned from Vizagapatam by letter.
Mr. Alexander Davidson.	June 18, 1785	April 6, 1786	Acting Governor.
Sir Archibald Campbell, K.B.	April 6, 1786	Feb. 7, 1789	
Mr. John Holland ...	Feb. 7, 1789	Feb. 13, 1790	Acting Governor.
Mr. Edward Hollond.	Feb. 13, 1790	Feb. 20, 1790	Acting Governor.
Major-Genl. William Medows.	Feb. 20, 1790	Aug. 1, 1792	
Sir Charles Oakeley, *Bart.*	Aug. 1, 1792	Sept. 7, 1794	
Lord Hobart	Sept. 7, 1794	Feb. 20, 1798	
Lieut.-General George Harris, Commander-in-Chief.	Feb. 21, 1798	Aug. 21, 1798	Acting Governor.
Lord Clive	Aug. 21, 1798	Aug. 30, 1803	
Lord William Bentinck	Aug. 30, 1803	Sept. 11, 1807	
Mr. William Petrie ...	Sept. 11, 1807	Dec. 24, 1807	Acting Governor.
Sir George Hilaro Barlow, *Bart.*, K.B.	Dec. 24, 1807	May 21, 1813	
Lieut.-Genl. The Hon. John Abercromby.	May 21, 1813	Sept. 16, 1814	Came out as Commander-in-Chief and temporary Governor.
The Right Hon. Hugh Elliot.	Sept. 16, 1814	June 10, 1820	
Sir Thomas Munro, *Bart.*, K.C.B.	June 10, 1820	......	Died at Putticondah in the Bellary District on the 6th July 1827.
Mr. Henry Sullivan Græme.	July 10, 1827	Oct. 18, 1827	Acting Governor.
Mr. Stephen Rumbold Lushington.	Oct. 18, 1827	Oct. 25, 1832	
Sir Frederick Adam, K.C.B.	Oct. 25, 1832	March 4, 1837	
Mr. George Edward Russell.	March 4, 1837	March 6, 1837	Acting Governor.
Lord Elphinstone, G.C.H.	March 6, 1837	Sept. 24, 1842	Left the Presidency on the 29th September 1842 for Bangalore and Neilgherry Hills *en route* for Europe.
Marquis of Tweeddale, K.T. & C.B.	Sept. 24, 1842	Feb. 23, 1848	Was also Commander-in-Chief.
Mr. Henry Dickinson.	Feb. 23, 1848	April 7, 1848	Acting Governor.
Sir Henry Pottinger, *Bart.*, G.C.B.	April 7, 1848	April 24, 1854	
Mr. Daniel Eliott ...	April 24, 1854	April 28, 1854	Acting Governor.
Lord Harris	April 28, 1854	March 28, 1859	
Sir Charles Edward Trevelyan, K.C.B.	March 28, 1859	June 8, 1860	
Mr. William Ambrose Morehead.	June 8, 1860	July 5, 1860	Acting Governor for the first time.

(*b*) *Governors of Fort St. George*—(Continued).

Names.	Assumed charge of office.	Made over charge.	Remarks.
Sir Henry George Ward, G.C.M.G.	July 5, 1860	......	Died at Madras on the 2nd August 1860.
Mr. William Ambrose Morehead.	Aug. 4, 1860	Feb. 18, 1861	Acting Governor for the second time.
Sir William Thomas Denison, K.C.B.	Feb. 18, 1861	March 27, 1866	Acted as Viceroy and Governor-General of India from 2nd December 1863 to 12th January 1864.
Mr. Edward Maltby ...	Nov. 26, 1863	Jan. 18, 1864	Acting Governor.
Lord Napier of Merchistoun, K.T.	March 27, 1866	Feb. 19, 1872	Embarked for Calcutta on the 19th February for the purpose of assuming temporarily the office of Viceroy and Governor-General of India on Earl of Mayo's death.
Mr. Alexander John Arbuthnot, C.S.I.	Feb. 19, 1872	May 15, 1872	Acting Governor.
Lord Hobart	May 15, 1872	......	Died at Madras on the 27th April 1875.
Mr. William Rose Robinson, C.S.I.	April 29, 1875	Nov. 23, 1875	Acting Governor.
The Duke of Buckingham and Chandos, G.C.S.I., C.I.E.	Nov. 23, 1875	Dec. 20, 1880	
Right Hon. William Patrick Adam.	Dec. 20, 1880	......	Died at Ootacamund on the 24th May 1881.
Mr. William Hudleston, C.S.I.	May 24, 1881	Nov. 4, 1881	Acting Governor.
Right Hon. Mountstuart Elphinstone Grant Duff, C.I.E.	Nov. 5, 1881		

APPENDIX No. XLII.

CHRONOLOGICAL LIST OF TERRITORIES ACQUIRED BY THE BRITISH WITHIN THE PRESIDENCY, AND THEIR BRIEF SUBSEQUENT HISTORY.

Alphabetical Index to the List.

Year.	How acquired, &c.
	(1) PETTAPOLY.
1611	Now Nizampatam, a sea-port in the district of Kistna. This is the first place at which the English commenced to trade on the Eastern Coast of the continent of India. They landed at Pettapoly, August 20th, 1611, sent goods on shore and left two of the supercargoes, picking them up again on the ship's return from Masulipatam, and proceeding across the Bay to Bantam.
1621	Factory established.
1653	Dissolved.
1682	Noted as existing, 21st July.
1686	Dissolved again.
1697	Re-settled.
1702	2nd July. The factory is entered in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies," but it was probably soon after dissolved, as there is no further mention of it in the Local Records.
1753	November; ceded to the French by the Nizam, as part of the Northern Circars.
1759	14th May; as part of the Nizampatam Circar bestowed on the English by Salaubut Jung, the Nizam.
1765	12th August; grant confirmed by the Moghul's firmaun.
	(2) MASULIPATAM FACTORY.
1611	The chief town and port of the Kistna district. The first English vessel that traded at Masulipatam arrived there 31st August of this year.
1621	Factory established.
1628	Removal to Armegam owing to exactions of local Governor, one factor being left behind to collect debts, 27th September.
1632	November; factory re-established under the "Golden Phurmaund" of the King of Golcondah.
1689	Factory seized by the local Governor owing to the rupture between Aurungzeeb and the Company.
1690	Cowle for the factory renewed. Firmaun dated 28th December from Zoolfakar Khan, the Moghul General.
1702	The factory of 'Metchlipatnam' is entered in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies," dated 2nd July.
1750	July; captured by the French under orders of Dupleix, who sent up a force by sea from Pondicherry.
1753	November; formally ceded to France by the Nizam with the rest of the Circars.
1759	Retaken from the French by Colonel Forde, 7th April.
1759	14th May; bestowed on the English Company as an inam or free gift, together with the whole of the Circar of Masulipatam and other territory by the Nizam Salaubut Jung.
1765	12th August; grant confirmed by the Moghul's firmaun.
	(3) CALICUT FACTORY.
1616	Now merged in the town of Calicut, the capital of the district of Malabar. Factory established by permission of the Zamorin or Rajah of Calicut, the ancestor of the present Zamorin.
1664	Establishment expelled by the Dutch.
1668	Agency re-established.
1702	2nd July; factory entered in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies."
1766	Grant of factory and all existing privileges confirmed and ratified by Hyder Ally on his conquest of Malabar, 23rd February.
1770	Further ratification by Hyder Ally. Treaty 8th August.
1779	English dispossessed by Hyder Ally.
1782	Reduced by Major Abingdon.
1784	Treaty dated 11th March. Factory and privileges restored by Tippoo Sultan.
1792	Ceded with the rest of Malabar to the Company by Tippoo. Treaty dated 18th March.

Year.	How acquired, &c.
	(4) POOLICAT.
1621	A sea-port in the district of Chingleput, 23 miles north of Madras. The Dutch had already placed a factory there in 1609. British factory established by permission of the Dutch under the operation of the treaty concluded between King James I and the States-General, dated 7th July 1619.
1622	Factory withdrawn in consequence of the oppressions of the Dutch.
1781	Fort, Factory, and Dependencies, viz., the Island of Iroocam and the villages of Vanjiwaukum, Avariwaukum, and Canavandoray (land revenue, 1,475 pagodas) taken from the Dutch by Lord Macartney, Governor of Madras, 2nd July. The Island of Iroocam is now attached to the Nellore district.
1785	July; restored to Holland under treaty with the States-General of 20th May 1784.
1795	Surrendered to the English on the summons of the Governor Lord Hobart. Capitulation dated 16th July.
1818	31st March; restored to Holland agreeably to the Convention of the Allied Powers in 1814.
1825	1st June; restored to Great Britain under the treaty of March 1824.
	(5) ARMEGAM FACTORY.
1625	A port in the district of Nellore, 66 miles north of Madras. February; the ground for the factory obtained from the local Curnum or Canoongo, Patnaswamoola Armoogam Moodelly, and named after him.
1641	24th September; establishment removed to the new station, Madras, and the place abandoned altogether.
1801	31st July; ceded with the rest of the Carnatic to the East India Company by His Highness Prince Azeem ool Dowlah, Nawab Soobahdar of Arcot.
	(6) VEERAVAUSARAM.
1634	A small town, 8 miles north-west of Narsapore Port, Godavery district. Factory established.
1662	Withdrawn.
1677	Re-established.
1702	No longer existing. Not in list of Dead Stock taken this year.
1768	Ceded with Circars.
	(7) MADRASPUTNAM, ORIGINAL SETTLEMENTS.
1639	1st March; grant for a station and for the erection of a fort obtained for the Company from Shree Runga Rayooloo (descendant of the Vijianugger Kings reigning at Chundragherry, about 90 miles north-west of Madras) by the local Governor or Naick, Damarla Vencatadry (ancestor of the present Rajah of Calastry), who desired that the station (which was selected "as better calculated for the protection of trade than Armegam") might be styled Chennappa-putnam, after his father, Kary Chennappa, which was done, although the Royal grant enjoins the use of the name "Shree Runga Rayapatnam." Mr. Francis Day, one of the Council at Masulipatam, and the head of the factory at Armegam, was the officer who negotiated the matter. The grant covered a space roughly estimated as five miles in length by one mile in breadth.
1645	The Hindoo State of Chundragherry being subverted about this time by the Mussalman King of Golcondah, the Agent and Council at Fort St. George send a deputation, with a present to Golcondah, to obtain a confirmation of their privileges. Mention is made in Bruce's Annals under the year 1650-51 of the grant having been obtained, but the formal document was not delivered till 1683.
1671	It is agreed to pay the King of Golcondah 1,200 pagodas (4,800 rupees) per annum, as rent for the settlement which is to be free from any other imposition for ever, and to pay 11,000 pagodas in full of all demands for the time past.

(7) MADRASPUTNAM, ORIGINAL SETTLEMENTS —(*Continued*).

Year.	How acquired, &c.
1683 ..	The Golcondah firmaun formally delivered to Mr. William Gyfford, Governor. Golcondah fell under the arms of Aurungzeeb in 1687, and the rent then became an asset of the Moghul Empire.
1702 ..	2nd July; described in the list of the Dead Stock of the two East India Companies, as "Fort St. George, with the castle and fortifications, and territory thereto belonging, upon which a large city is built, consisting of—houses, which are held of and pay rent to the said Governor and Company, together with the said city and its dependencies."
1746 ..	10th September; surrendered to the French under Labourdonnais. Ransom fixed by him at 11 lakhs of pagodas (44 lakhs of rupees or 440,000 pounds sterling), but the stipulation disregarded by Dupleix.
1749 ..	15th August; delivered up by the French under the treaty of Aix-la-Chapelle, dated 7th October 1748.
1752 ..	31st August; Mahomed Ally (Wallajah) Nawab of Arcot, remits by firmaun the 1,200 pagodas (4,800 rupees) per annum, the rent heretofore paid for the settlement.
1765 ..	12th August; possession confirmed by a firmaun from the Moghul by way of inam or free gift.

(8) MADAKARA.

Year.	How acquired, &c.
1669 ..	Island on the north side of the Belliapatam or Valarputnam river, north of Cannanore; is now a part of the Chiracal talook. Obtained from the Rajah of Chiracal, probably as a trading post on rent.
1736 ..	March; permission granted by the Rajah for the erection of a fort.
1749 ..	May; the island formally ceded by the Rajah as a British possession.
1762 ..	August; fort blown up and island given back to the Vice-Regent of Chiracal. After the fall of Pondicherry and Mahé in 1761, this post which had up to that time been useful in protecting the English Company's trade, and in retarding that of the French Company, was abandoned as no longer of use.
1792 ..	18th March; ceded by Tippoo with the rest of Malabar and other territory.

(9) MADAPOLLAM FACTORY.

Year.	How acquired, &c.
1679 ..	Makes one village with Narsapore of the Godavery district, 45 miles north of Masulipatam, 6 miles from mouth of the Vasishta branch of the Godavery, and on its right bank. December; factory established.
1688 ..	August; withdrawn.
1698 ..	Resettled under orders of Court of Directors.
1702 ..	Entered in the Dead Stock of the two uniting Companies.
1757 ..	Captured by the French under Bussy.
1759 ..	14th May; part of the territory ceded by the Nizam's Treaty with Colonel Forde.
1765 ..	12th August; grant confirmed by the Moghul's firmaun.

(10) PORTO NOVO OR FARANGIPETT.

Year.	How acquired, &c.
1681 ..	A seaport in the district of South Arcot. Cowle for making a settlement obtained from Harjee Rajah, the Soobahdar of Jinjee, and the Deputy in the Carnatic of Sumbajee, who had recently succeeded his father, Sivajee, as head of the Mahratta dynasty.
1702 ..	2nd July; factory entered in the "Quinquepartite Indenture of the Conveyance of the Dead Stock of the two East India Companies."

(10) PORTO NOVO OR FARANGIPETT— (*Continued*).

Year.	How acquired, &c.
1758 ..	Fell into the hands of the French under Lally, with Fort St. David and Cuddalore.
1760 ..	French driven out by Colonel Coote after his defeat of Lally at Wandiwash.
1782 ..	Taken by the French under Bussy.
1785 ..	1st February; restored to England under treaty of Versailles, dated 3rd September 1783.

(11) CUDDALORE FACTORY.

Year.	How acquired, &c.
1682 ..	A seaport in South Arcot, and the chief town of that district. Factory established.
1683 ..	Business commenced.
1692 ..	Ordered by the Court of Directors to be withdrawn, along with Conimere, in consequence of the grant of Tegnapatam by Ramrajah.
1702 ..	2nd July; mentioned as existing, in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies."
1758 ..	Surrendered to Lally, 4th May.
1760 ..	April; retaken by a detachment under Asaf Beg, sent by Coote after his victory at Wandiwash.
1782 ..	8th April; capitulated to the French, assisted by the Mysoreans.
1785 ..	1st February; restored to England by France under the treaty of Versailles, dated 3rd September 1783.

(12) VIZAGAPATAM FACTORY.

Year.	How acquired, &c.
1683 ..	A seaport, capital of district of that name. This is the supposed date of establishing the settlement, being the first mention of it. If the date is correct, the grant must have issued from the King of Golcondah or his local officers.
1689 ..	13th September; factory seized and the English officers put to the sword by the Moghul's orders, owing to the rupture between Aurungzeeb and the Company in that year.
1690 ..	28th December; cowle for the factory renewed by Zoolfakar Khan, the Moghul General in the Deccan.
1692 ..	April; factory allowed to be fortified by the same authority.
1702 ..	Entered in the Dead Stock account taken on the union of the two East India Companies. It is there described as "the Fort and Factory at Vizagapatam."
1710 ..	8th November; blockaded by the forces of Fuckerla Khan, a local Nawab, but the attack repulsed.
1716 ..	Firmaun from the Emperor Ferokshere confirming the possession of the settlement.
1757 ..	25th June; captured by the French under Bussy.
1758 ..	12th September; presented to the English by the Rajah of Vizianagram after capturing it from the French garrison.
1765 ..	12th August; grant confirmed by the Moghul's firmaun.
1768 ..	23rd February; finally ceded by the Nizam together with the rest of the Northern Circars.

(13) TELLICHERRY.

Year.	How acquired, &c.
1683 ..	Town and seaport in Malabar. Factory established under a Chief and Factors by the President of Surat, being the first Pepper settlement on the Malabar Coast.
1688 ..	Factory strengthened.
1702 ..	Entered in the Dead Stock list of the two East India Companies as the "Fort of Tellicherry."

(13) TELLICHERRY—(*Continued*).

Year.		How acquired, &c.
1708	..	Formal grant obtained for the fort from the Chiracal Rajah.
1719	..	Limits of settlement extended on south side after a successful war with the Coringote Nayar.
1776	..	The settlement reduced from a Chiefship to a Residency.
1780	..	Besieged by Sirdar Khan, Hyder's Fowjdar, with the Chiracal Rajah.
1782	..	Successful sortie under Major Abingdon, and the siege raised.
1784	..	The Chiefship re-established.
1794	..	Chiefship abolished, and the settlement placed directly under the Supervisor of Malabar.

(14) CONIMERE OR COONIMODE.

Year.		How acquired, &c.
1683	..	On the coast, South Arcot district, 10 miles north of Pondicherry. Factory established.
1688	..	Firmaun for a fortified settlement and liberty of trade obtained on a present of 800 pagodas or Rupees 3,200, from Ramrajah, who, on the assassination of his elder brother Sumbajee (Sivajee's successor) by Aurungzeeb, and the simultaneous captivity of Sahojee, Sumbajee's son, became head of the Mahratta dynasty.
1691	..	Withdrawn by order of the Court of Directors, on the purchase of Tegnapatam (Fort St. David).
1801	..	Ceded with the rest of the Soobah of Arcot to the Company by treaty with Azeem ool Dowlah, Nawab Soobahdar of the Carnatic, 31st July.

(15) TEGNAPATAM OR FORT ST. DAVID.

Year.		How acquired, &c.
1690	..	Also written Thevanapatnam, Devenapatnam, Devenampatnam, Devipatnam; now included in Cuddalore, the chief town of the South Arcot district. September 1st; the grant of land for this settlement was purchased for 120,000 chuckrams (= 8,000 pagodas or Rupees 32,000) from Ramrajah.
1702	..	July 2nd; mentioned in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies" as "all that fort called Fort St. David (being a strong fort and factory) and about three miles compass of the circumjacent country, upon which several small towns or villages are erected."
1758	..	June 2nd; surrendered to the French under Lally, who at once razed all the fortifications to the ground. It was afterwards included in Cuddalore and its dependencies, instead of being shown under a separate head.

(16) TONDIARPETT, PURSEWAUKUM AND EGMORE VILLAGES.

Year.		How acquired, &c.
1693	..	February 10th; purwanna from Asad Khan, Aurungzeeb's Grand Vizier, granting the English the three towns of Tondiarpett, Pursewaukum and Egmore, now included in the city of Madras.
1746	..	September 10th; surrendered, as part of the city of Madras, to the French arms under Labourdonnais. Ransom fixed by him at 11 lakhs of pagodas (44 lakhs of rupees or 440,000 pounds sterling); but the stipulation disregarded by Dupleix.
1749	..	August 15th; delivered up, as part of the city of Madras, by the French under the operation of the treaty of Aix-la-Chapelle, dated 7th October 1748.
1765	..	August 12th; original grant confirmed by a firmaun from the Moghul.

(17) ANJENGO.

Year.		How acquired, &c.
1694	..	A small seaport on the Travancore Coast, 78 miles N.N.W. of Cape Comorin, now attached to the Malabar Collectorate. Settlement formed by grant of the Queen of Attingal, a Princess under the sovereignty of Travancore, on payment of ground-rent.
1695	..	Fort built.
1702	..	Fort entered in the "Quinquepartite Indenture of Conveyance of the Dead Stock of the two East India Companies," dated 2nd July. This tract has been leased to the Travancore Government for an annual rent of Rupees 1,450.

(18) VYASARPAUDY AND NUNGUMBAUKUM VILLAGES.

Year.		How acquired, &c.
1708	..	September 25th; purwanna from Davood Khan, Nawab or Fowjdar of the Carnatic portion of the Golcondah Soobah, granting to the English the towns of Vyasarpaudy and Nungumbaukum, now included in the city of Madras.
1713	..	October; the towns mentioned resumed by Nawab Saadat-oollah Khan.
1716	..	January 5th; firmaun from the Emperor, Ferokshere, cancelling this resumption and confirming the grant.
1746	..	September 10th; surrendered, as part of the city of Madras, to the French arms under Labourdonnais.
1749	..	August 15th; delivered up, as part of the city of Madras, by the French under the operation of the treaty of Aix-la-Chapelle, dated 7th October 1748.
1765	..	Old grants confirmed by firmaun of the Moghul.

(19) TRIVETTORE, SHATTANCAUD AND CUTTIWAUKUM.

Year.		How acquired, &c.
1708	..	The last-named is called by the English "Ennore." These three villages lie to the north of the city of Madras, in the Sydapett talook of the Chingleput district. September 25th; purwanna from Davood Khan, Nawab and Fowjdar of the Carnatic portion of the Golcondah Soobah.
1713	..	Resumed by Nawab Saadat-oollah Khan.
1716	..	January 5th; firmaun from the Emperor Ferokshere, cancelling this resumption and confirming the grant.
1765	..	12th August; confirmed again by the general firmaun of the Moghul.

(20) CHETWYE ISLAND.

Year.		How acquired, &c.
1715	..	A strip of land on the sea-coast of the Malabar district insulated by the estuaries of Chetwye and Codangalore (Cranganore), 50 miles north of Cochin. It is now part of the Ponnany talook. Permission granted by the Zamorin to the English to build a warehouse here.
1717	..	Seized from the Zamorin by the Dutch who built a fort here.
1776	..	Conquered by Hyder Ally from the Dutch.
1790	..	Taken by Lieutenant-Colonel Hartley and leased to the Cochin Rajah for Rupees 40,000 per annum. The lease is dated 26th November 1790. It was renewed in 1791 for two years, and in 1794 for ten years.

(21) INJARAM FACTORY.

Year.		How acquired, &c.
1722	..	On the Godavery, 6 miles south of Coringa. June; factory established.
1757	..	Captured by the French under Bussy.
1759	..	May 10th; part of the territory ceded by Nizam's treaty with Colonel Forde.
1765	..	August 12th; grant confirmed by the Moghul's firmaun.

(22) DHARMAPATAM ISLAND.

Year.	How acquired, &c.
1734 ..	Immediately to the north of the Tellicherry Factory. The Anjarcundy river splits into two branches as it approaches the sea, and the land lying between them and the sea is the island in question: now in the Cottayam talook of the Malabar Collectorate. Ceded to English by the Chiracal, Cotiote and Cannanore Rajahs.
1788 ..	June; seized by Ravivarma, Rajah of Chiracal.
1789 ..	January 3rd; re-taken by the English.

(23) VEPERY, PERAMBORE AND POOTHOOPAUK VILLAGES.

Year.	How acquired, &c.
1742 ..	4th November; sunnud from Nawab Saadatoollah Khan, Soobahdar of Arcot, granting by way of inam to the Company these three villages now included in the city of Madras.
1746 ..	September 10th; surrendered, as part of the city of Madras, to the French under Labourdonnais.
1749 ..	August 15th; delivered up, as part of the city of Madras, by the French under the operation of the treaty of Aix-la-Chapelle, dated October 7th, 1748.
1765 ..	August 12th; original grant confirmed by firmaun of the Moghul.

(24) YERAVANORE AND SHADAYANCOOPPAM.

Year.	How acquired, &c.
1742 ..	Two villages to the south of Madras in the Sydapett talook of Chingleput district. Yeravanore held at a pepper-corn rent, on Shrotriem tenure. November 4th; grant from Nawab Saadatoollah Khan, Soobahdar of Arcot.
1765 ..	August 12th; confirmed by the Moghul's firmaun.

(25) ST. THOMÉ TOWN.

Year.	How acquired, &c.
1749 ..	2nd October; firmaun from Mahomed Ally (afterwards Wallajah), Nawab of the Carnatic, granting to the English the town of Mylapore or St. Thomé, now included in the city of Madras; it appears that the English immediately after the restoration (15th August 1749) of Madras by the French, under the treaty of Aix-la-Chapelle, took possession of St. Thomé, for fear of its falling into the hands of the French.
1765 ..	August 12th; grant confirmed by the Moghul's firmaun.

(26) DEVICOTTAH.

Year.	How acquired, &c.
1749 ..	A town in the Tanjore District, near the junction of the Coleroon with the sea, 37 miles south of Pondicherry. Town and fort captured by Major Lawrence in a war between the English and Prataup Sing, Rajah of Tanjore, which had been commenced by the former with a view to the restoration of Sahojee to the throne of that kingdom, but afterwards continued on their own account, with the view "of making some acquisitions to compensate the expenses which had already been incurred."
1758 ..	January 1st; ceded, with 31 surrounding villages, to the English by Rajah Prataup Sing, on condition of his receiving military aid whenever required. Land revenue 9,000 pagodas.
1758 ..	June 4th; fortress abandoned by the English garrison on the fall of Fort St. David to Lally and the approach of a large French force.
1760 ..	February; evacuated by the French after Coote's victory at Wandiwash, and re-garrisoned by the English.

(27) TIROOVENDIPOORAM.

Year.	How acquired, &c.
1750 ..	In the district of South Arcot, 28 villages, rated at 26,250 chuckrams. February; granted by the Nawab of Arcot to the Company in jagheer.
1765 ..	August 12th; firmaun from the Moghul confirming the above grant by way of inam or free gift.

(28) POONAMALLEE DISTRICT.

Year.	How acquired, &c.
1750 ..	Consisting of 231 villages, in the district of Chingleput. 26th September; granted in jagheer to the Company by Mahomed Ally (afterwards Wallajah), Nawab of Arcot, who then styled himself by his deceased father's name, Anwar-ood-deen Khan. Revenue (with customs) 34,840 pagodas.
1765 ..	August 12th; confirmed by way of inam or free gift by a sunnud from the Moghul.

(29) BENDAMOORLUNKA AND NEELAPULLY FACTORIES.

Year.	How acquired, &c.
1751 ..	Bendamoorlunka, a seaport, Godavery district, west of Narsapore. Neelapully near Injaram. November; both factories established.
1757 ..	Both taken by Bussy.
1759 ..	14th May; part of the territory ceded by Nizam's treaty with Colonel Forde.
1765 ..	August 12th; grant confirmed by the Moghul's firmaun.

(30) FORT OF MOUNT DELLY.

Year.	How acquired, &c.
1754 ..	A detached hill, 855 feet in height, on the Malabar Coast, forming a prominent landmark in the charts; included in Chiracal talook. A fort was first built here on a bluff projecting into the sea, by the Portuguese, from whom the Dutch took it. February 24th; the French acquired it by purchase from the Chiracal Rajah.
1761 ..	The small French garrison massacred by Ally Rajah of Cannanore who was obliged to deliver it up to the English according to the terms of the capitulation of Mahé, dated 10th February 1761.
1779 ..	Taken by Sirdar Khan, Tippoo's General.
1784 ..	Restored to the English by the treaty of Mangalore, dated 11th March 1784.

(31) THE CIRCAR OF MASULIPATAM, WITH EIGHT DISTRICTS, THE CIRCAR OF NIZAMPATAM AND THE DISTRICTS OF CONDAVEED AND ACOOLAMANNAUD.

Year.	How acquired, &c.
1759 ..	14th May; given to the English Company "as an inam or free gift" by the Nizam, Salaubut Jung, in treaty with Colonel Forde. The small Circar of Masulipatam is not to be confounded, as it often is, with the extensive district afterwards so called. The whole territory ceded by the foregoing treaty is about 700 square miles only in extent, and with the exception of the towns mentioned below on the Godavery river; which now belong to the Godavery district; is portion of the present Kistna Collectorate. The ceded territory embraced the following:— The Circle of Bunder, or sea-ports of Masulipatam, divided into eight districts or Mahauls, forming a semi-circle from 2 to 20 coss round the fort:— 1. The Havelly, or home grounds and gardens of 12 pettahs or suburbs with their six circumjacent polliems or petty zemindarries, and the salt-pans. 2. Divy, with six lesser islands. 3. Mallore. 4. Inoogoodoor.

Year.	How acquired, &c.

(31) THE CIRCAR OF MASULIPATAM, WITH EIGHT DISTRICTS, THE CIRCAR OF NIZAMPATAM AND THE DISTRICTS OF CONDAVEED AND ACOOLAMANNAUD—(*Continued*).

Year.	How acquired, &c.
	5. Pedana. 6. Toommidy. 7. Bondauda. 8. Narsapore. The Circar of Nizampatam sub-divided into 36 Mahauls lying south of the Kistna, on the coast, about 20 coss from Masulipatam. It extended 60 miles south from Point Divy and averaged 5 miles in breadth. Condaveed (alias Goontoor) a large pergunnah (not to be confounded with the large district of same name), two coss west of Masulipatam, containing fifty-two villages. Acoolamannaud of fifty-two villages. Tundoor. The towns and dependencies of Neelapully, Bendamoorlunka Sakhinedapully, Rameswaram, Gonganapully, Antarvedhy, on the coast, on different branches of the Godavery river.
1765 ..	12th August; grant confirmed by the Moghul's firmaun.

(32) CHINGLEPUT DISTRICT, GREATER PORTION.

Year.	How acquired, &c.
1763 ..	16th October; on this date the Nawab of the Carnatic by 17 sunnuds "in consideration of the great services rendered to his affairs by the Company, their firm friendship for him, and his dependence on their future alliance" gives and makes over to them in Jagheer (exclusive of subsidiary shrotriems and inams, and exclusive also of the forts of Chingleput, Tripassore, Caroongooly, Alamparva, and of the mints at Alamparva and Covelong) 1,759 villages belonging to 17 pergunnahs which are now included in the Madras district of Chingleput. October 29th; reciting similar grounds, gives a similar sunnud for 175 villages which in the sunnud of 16th idem were not reckoned as belonging to the pergunnahs granted, but which his Sheristadar has reminded him appertain to the same.
1765 ..	12th August; firmaun from the Moghul confirming these grants by way of inam or free gift.
1801 ..	31st July; the items reserved in the grant of 16th October 1763 ceded with the rest of the Soobah of Arcot to the Company by treaty with Azeem ool Dowlah, Nawab Soobahdar of the Carnatic.

(33) RANDATARRA.

Year.	How acquired, &c.
1741 ..	Formerly a small talook in North Malabar lying between Cannanore and Dharmapatam Island, now comprised in the Chiracal talook of the Malabar Collectorate. Mortgaged by the Atchanmars or Chiefs to the Company for 60,000 silver fanams, equal to 12,000 rupees.
1749 ..	The debt increased to 80,000 fanams.
1765 ..	23rd March; ceded to the Chief of Tellicherry by Ravivarma, Regent of the Chiracal Raj.
1779 ..	Reduced by the Rajah of Chiracal and Cartinaud (Cadatnaud) under the requisition of Hyder Ally.
1782 ..	Reoccupied by the Chief of Tellicherry.
1786 ..	Seized again by the Rajah of Chiracal.
1792 ..	Falls to the Company with the rest of Malabar under the Treaty, dated 18th March 1792, with Tippoo, and placed by the Bombay Commissioners directly under the Company's Government.

(34) THE CIRCARS OF CHICACOLE, RAJAHMUNDRY, ELLORE, MOOSTAFANUGGER, AND MOORTIZANUGGER.

Year.	How acquired, &c.
1768 ..	26th February; on this date were ceded by the Nizam in treaty with the Government of Fort St. George, subject to an annual payment (since commuted) of 7 lakhs of rupees, the Circars of (1) Moortizanugger alias Goontoor alias Condaveed; (2) Moostafanugger alias Condapilly; (3) Ellore; (4) Rajahmundry; (5) Chicacole alias Calingyah. This cession, together with the cession of 14th May 1759. Vide No. (31) and the talooks of Bhadrachellam and Rekapully comprises the whole of what is now known as the "Northern Circars" or the four extensive Madras districts of Ganjam, Vizagapatam, Godavery, and Kistna, the two last-mentioned having been formed out of the three old districts styled in 1859, Rajahmundry, Goontoor, and Masulipatam. The above date, 26th February 1768, is generally reckoned as that of the actual cession of these territories, and was so recognised by law. Vide Section 2, Madras Regulation No. XXXI of 1802, because the sunnud of the Moghul Emperor, dated 12th August 1765, assigning this territory to the English Company, by way of inam or free gift, and the treaty with the Nizam of 12th November 1766, by which he ceded the same provinces, had no substantial operation. In regard to the Circar of Moortizanugger, the Government of Fort St. George agreed, out of friendship for the Nizam, to permit his brother Basaulat Jung to enjoy it as a jagheer for life. The tenant died on the 5th October 1782, and some difficulties delaying prompter action on the part of the Company, the Nizam's Amildars retained the country till a formal sunnud for its delivery was procured by Lord Cornwallis on the 18th September 1788.

(35) NAGORE.

Year.	How acquired, &c.
1778 ..	A seaport in the district of Tanjore, 14 miles south of Tranquebar, and a few miles north of Negapatam, with the small island belonging to it and eight magannies (divisions) comprising 277 villages. June 17th; granted to the Company by the Rajah of Tanjore in consideration of services rendered (*i.e.*, his restoration to his throne from which he had been expelled by the Nawab of Arcot) and in hope of future protection.

(36) SADRAS, BIMLIPATAM, JUGGANNADAPOORAM, PALCOLE, PORTO NOVO FACTORY, AND TUTICORIN.

Year.	How acquired, &c.
1781 ..	Sadras. A seaport in the Chingleput district, 43 miles south of Madras, containing a fort and factory and having subordinate villages attached to it.
1825 ..	Bimlipatam. A seaport in the Vizagapatam district, 20 miles by road and 17 miles by sea, north of the town of Vizagapatam, where the Dutch possessed a fortified factory with a bleaching ground. Juggannadapcoram. A suburb of Cocanada, the chief town of the Godavery district: here the Dutch had a factory with the following dependencies, viz., the village of Gollapollem, the ground at Goondavaram, and the factory at Drauksharamam. Palcole. A town 6 miles from Narsapore, Godavery district, with its dependent village, Contaira, and a piece of ground at Narsapore. The ground at Narsapore on which the Dutch Factory stood was washed away by the Godavery river many years ago.

Year.	How acquired, &c.
	(36) SADRAS, BIMLIPATAM, JUGGANNADAPOORAM, PALCOLE, PORTO NOVO FACTORY, AND TUTICORIN—(*Continued*).
	Porto Novo. Here were a Dutch Factory house and a bleaching place called Vannaurpolliem. These are not now in existence. Tuticorin. The chief seaport in Tinnevelly, and principal emporium of the cotton trade in Southern India. The site of the old Dutch fort is now occupied by a cotton screw, the fort itself having been destroyed by the English in 1810. Trade at Tuticorin has received a great impetus since the southern terminus of the railway connecting Tinnevelly with Trichinopoly and Madras was established here. In the time of the Dutch the city of Tuticorin ruled at the head of its nine subordinate Commercial Lodges, viz., at Alwar Tinnevelly, Coilpaubam, Shendamungalam, Manapauray, Permacoil, the Island of Alandale, the Island of Freshwater, Keelakaray (in the Madura district), and Cape Comorin. The foregoing six Dutch settlements (together with Poolicat and Negapatam) were taken by the English in this year, Lord Macartney being Governor.
1785 ..	July; all six restored to Holland under treaty with the States-General of 20th May 1784.
1795 ..	All six surrendered to the English on war again breaking out, Lord Hobart Governor of Madras at this period.
1818 ..	31st March; all six restored to Holland agreeably to the Convention of the Allied Powers in 1814.
1825 ..	1st June; all six ceded to Great Britain under the treaty of March 1824.
	(37) NEGAPATAM.
1781 ..	A seaport in the district of Tanjore, and the terminus of the South Indian Railway. 12th November; this, the chief settlement on the Coromandel Coast of the Dutch, who had taken it from the Portuguese in 1660, capitulated, after nine days' siege, to Sir Hector Munro, whose small army was reinforced by seamen and marines landed from the fleet under Sir Edward Hughes. This achievement was initiated by the Governor of Madras, Lord Macartney.
1784 ..	On the 20th May peace was signed between England and the States-General of the United Provinces on the basis of a mutual restitution of places captured by the arms of either during the late war, Negapatam being excepted; England agreed, however, to treat with the States-General for its restitution in case the State should ever have an equivalent to offer. Nothing further was done, and the place has remained an English possession.
	(38) DISTRICTS CEDED BY TIPPOO SULTAN UNDER THE TREATY OF SERINGAPATAM.
1792 ..	By treaty the Coorg Rajah became subordinate to the Company instead of to Tippoo. He agreed to pay the Company 8,000 pagodas (= 32,000 rupees). Coorg became British territory in 1834, but has not been incorporated with the adjoining Presidency of Madras, except the two magannies of lower Coorg, viz., Amara and Soolya. On the 17th March were ceded and incorporated with the Madras Presidency (1) the whole of the present district of Malabar, except Cochin and Wynaud; (2) the Dindigul and Pulney talooks of the present Madura district; (3) the whole of the present Salem district except what is comprised in the present Oossoor talook; and (4) one talook, Cungoondy, of the present North Arcot district.

Year.	How acquired, &c.
	(39) COCHIN CITY.
1795 ..	October 19th; surrendered to the force sent against it by the Governor of Madras, Lord Hobart. Attached since 1802 to Malabar Collectorate.
1814 ..	Finally ceded to the British Government by treaty at the time when the other Dutch Indian Settlements, captured the same year, were restored to Holland.
	(40) TUNGACHERRY.
1795 ..	Adjoins Quilon, in the Travancore country, on the west: a Portuguese possession from 1555 to 1665, then captured by the Dutch. The fort is built on a headland of laterite, jutting into the sea, the length about 2½ furlongs east and west, and mean breadth 1 furlong. Land-tax 185 rupees, add land-tax of four gardens belonging to the settlement, Rupees 237. This territory came under the English Government on the capture of Cochin in this year, and, like that city, is attached to the Malabar Collectorate. This tract has been leased to the Travancore Government for an annual rent of Rupees 2,447.
	(41) DISTRICTS ACQUIRED BY THE PARTITION TREATY OF MYSORE.
1799 ..	July 13th; partition Treaty of Mysore between the English, the Nizam, and the Peshwa for the adjustment of the territories of the late Tippoo Sultan. The districts acquired by the English and now incorporated in the Madras Presidency were—(1) South Canara, except the two magannies of the lower Coorg, Amara and Soolya, which were added to South Canara in 1834 on the annexation of Coorg to the British Possessions; (2) Coimbatore; (3) the Neilgherry Hills except South-East Wynaud lately added to that district; (4) so much of the Salem district as is contained in the talook of Oossoor; (5) the Vencatagherrycottah talook of North Arcot; and (6) a portion (one-third) of the Poonganore talook of North Arcot.
	(42) TANJORE DISTRICT—GREATER PORTION.
1799 ..	This district, except the former grants of Devicottah and Nagore, the Fort of Tanjore, and the settlements of other European nations, was assigned to the Company by Sarbhojee on the 25th October.
	(43) CEDED DISTRICTS.
1800 ..	Ceded by the Nizam in perpetuity by treaty dated 12th October "for the regular payment of the expense of the augmented subsidiary force." The districts now representing this cession are Bellary (except the feudatory Native State of Sundoor; Vide No. 45). Cuddapah, the feudatory Native State of Bunganapully (free from tribute), and Kurnool. The Nawab of Kurnool agreed to pay to Hyder Ally when the country was conquered in 1875-76, 2 lakhs of rupees, but the Nawab never paid the amount either to the Mysore Government or the Nizam and always resisted the demand. When the district was Ceded to the British in 1800 the Nawab raised objections and the peshcush was reduced to 1,25,000 Gadwal rupees for the first eight years and to one lakh at the end of that period, the latter amount being equal to Rupees 84,500 of Government currency. In 1839, the Nawab was deposed and the country brought under direct administration. Subsequently the district has been enlarged by the addition of talooks taken from Bellary and Cuddapah.

(44) THE CARNATIC BELOW GHAUTS, GREATER PORTION.

Year.	How acquired, &c.
1801 ..	The whole of the Carnatic, and Payeen Ghaut, not included in previous grants, viz., the present Nellore district, North Arcot (except Cungoondy and Poonganore), South Arcot (except previous grants), Trichinopoly, Madura (except Dindigul and Pulney talooks) and Tinnevelly, also the feudatory State of Poodoocottah. July 31st; ceded to the Company by Azeem ool Dowlah, Nawab Soobahdar of the Carnatic.

(45) DISTRICTS CEDED BY RAJAH OF MYSORE.

Year.	How acquired, &c.
1803 ..	December 29th; supplementary treaty of 1803 with Mysore; under this treaty the Company, while ceding certain talooks to Mysore, obtained an equivalent cession, the whole of which is now incorporated with the Madras Presidency (except the talook Yelusávirashíme), which in 1804 was transferred to, and now forms part of, Coorg), viz.:— Ooddantapooram .. Bellary district. Two-thirds of Poonganore. North Arcot. Wynaud .. .. Part in Malabar, part in Neilgherries. Hulliaul, in North Canara which now belongs to the Bombay Presidency. Part of Goodicottah .. Bellary.

(46) SUNDOOR FEUDATORY STATE.

Year.	How acquired, &c.
1818 ..	Fell under the paramount sovereignty of the British Government, with the rest of the territories dependent on the Poona Government, on the surrender of Bajee Row, Peshwa.

(47) TRANQUEBAR.

Year.	How acquired, &c.
1845 ..	A seaport in the district of Tanjore, held by the Danes of the Rajah of Tanjore at an annual rent of 4,000 rupees. Transferred to the East India Company by the King of Denmark, with all other Danish settlements in India, for the sum of 12,50,000 rupees. Treaty done at Calcutta, 22nd February, and ratified by the Court of Directors of the East India Company at London, 2nd July.

(48) TANJORE FORT.

Year.	How acquired, &c.
1856 ..	October 18th; taken possession of by the Company twelve months after the death of Rajah Sivajee, without male heirs—direct or collateral.

(49) BHADRACHELLAM AND REKAPULLY TALOOKS.

Year.	How acquired, &c.
1860 ..	Ceded by the Nizam by the 8th Article of the Treaty, dated 26th December 1860. Now attached to the Godavery district.

APPENDIX No. XLIII.

HISTORY OF THE FORTIFICATIONS AT FORT ST. GEORGE, FROM THE EARLIEST TIMES TO THE PRESENT DAY.

1. In March 1639, Mr. Day obtained a piece of ground five miles long, and one broad, on the sea coast at what was then the small village of Madras, on which to build a Town and Fort. Without waiting for orders from the Court of Directors, Mr. Day at once proceeded to erect the new Factory, surrounding it by a slight wall which was defended with four ill constructed bastions, and as many batteries. He gave the fortification the name of Fort Saint George. At this period there were not more than a few fishermen's huts at Madras, but to encourage the natives to settle in the English possession it was proclaimed, "that for the term of 30 years no custom on any thing to be eaten, drank or worn, should be taken from any of the town dwellers." This appears to have had the desired effect of rapidly colonizing the new British settlement. Houses for the merchants and servants of the Factory soon sprang up outside the Fort, to the south and south-west, which the natives called the "White Town," in contradistinction to their own residences in "Black Town."

2. In 1644 the money expended on the fortifications amounted to Rupees 22,940; and it was computed that Rupees 20,000 more would be necessary to render them impregnable to the native powers. At this period the Fort was garrisoned by 100 European Soldiers, but in 1652 there were only 26, whilst shortly after the number was further reduced to a permanent guard of 10 men. The Agent and Council of each factory were entrusted with Martial Law for the government of the troops kept for its defence. Messrs. Greenhill and Chambers had been respectively holding the position of Chief Agent, but in 1653 Madras was raised to a Presidency; and Sir Edward Winter was appointed the first Governor. In 1662 a number of Africans were introduced into the British service, and trained to the use of arms. In 1665 a ship arrived from England with recruits, bringing out Mr. Foxcroft to supersede Sir Edward; the latter, however, imprisoned Foxcroft and retained possession of the Fort till August 1668, when he delivered it to Commissioners sent purposely from England. Mr. Foxcroft then assumed the Government and held it till 1671, when he was succeeded by Sir James Langhorne.

3. In 1672 the garrison was increased by the enlistment of sailors from the ships. In 1676 advices were received of another batch of recruits having been sent out; and the Court of Directors prohibited the custom of training natives to the use of arms, and the removal of any officer from a Civil to a Military situation. In the following year the Mahratta Chief, Sivajee, hovered within fifteen miles of Madras, intending to make an attack upon it, if opportunity offered; but finding none, quitted the Carnatic soon after.

4. In 1681 the first detachment of 30 soldiers was sent to Bengal from the Fort Saint George. In 1686, the Governor was in anxiety for the safety of the Fort, which was constantly threatened by Aurungzeeb's Army. In 1690, a troop of Horse, and a Company of European Artillery were added to the strength of the Garrison; and during the succeeding two years the country round about Madras was in a most unsettled state.

5. In 1693-94, the Court of Directors despatched recruits with orders to strengthen the fortifications of Fort Saint George; but no indication of what was done is to be found in the records. In 1696, the revenues at Madras amounted to 40,000 pagodas.

6. The first war at Madras occurred in 1702, between the English and Mahomedans. Davood Khan, Aurungzeeb's General, blockaded the place, and said he had orders to demolish it; he was, however, easily repulsed. Gun powder was first made in Madras in this year; and in 1703 the manufacture was so much improved that no more was sent from England.

7. In 1706-7 Governor Pitt was apprehensive of being attacked by the Arab fleet, and strongly represented the weakness oft he Fort. In 1708 there were petty disputes between the right and left hand castes, each threatening to retire to St. Thomé, if superiority were not granted.

8. In 1709-10, Davood Khan was succeeded by Sadut Oollah, as Nawab of the Carnatic, but nothing particular connected with Madras appears to have occurred during his reign. In 1723 the Court authorized a Mint to be erected, and the Gun Powder Factory to be repaired and enlarged. The Fort was also repaired. The Mint was erected inside the Fortress near the present Royal Bastion. The gun powder manufacture was carried on by contract at the site of the late Mint in Black Town, now the office of the Clothing Board and Medical Stores, until blown up by Lally in 1758.

9. In 1741 a large Army of Mahrattas appeared before the fort and demanded tribute, but the English replied by the fire of their guns and drove them off. In 1742 more troops arrived and the Directors directed the Governor to "put the Fort in the best posture of defence, and to give contributions to neither Moors nor Mahrattas."

10. In the following year an Engineer named Smith submitted plans for strengthening the Fort, and increasing its area from 15 to 30 acres; and he defined this additional area by a wet ditch which he dug and faced with bricks. He traced out four new bastions, one on each side of the north-west and south-west flanks, and two on the west. These were afterwards called the Royal or Mint bastion; Pygot's, Lawrence and the Nawab's bastions. All these works were carried on as high as the berm, but from financial reasons were then discontinued; and Orme states that at the commencement of hostilities, "the naked ditch remained neither an obstruction nor defence." On the breaking out of the war between England and France in 1746, De la Bourdonnais, the Governor of Mauritius, appeared in the offing with a large fleet and cannonaded the town, but without doing much damage. At this period the trade with England had raised Madras to some opulence and reputation. There were 250,000 native inhabitants in the Company's territories. The English, however, did not exceed 300 in number, 200 of whom were the soldiers of the garrison.

11. In the following September the French Squadron again appeared before Madras with 3,500 troops consisting of 1,100 Europeans, 400 Caffres and 400 Natives; and with 1,600 European mariners. These landed at St. Thomé and bombarded the Fort on the west side from a battery of nine pounders and on the south from five mortars, and on the east from the ships in the roads. On the 10th the Fort capitulated when it was agreed that the English should surrender themselves prisoners of war, and the town be delivered up, subject to ransom. The English lost only four or five men, and the French none. De la Bourdonnais and Dupleix, the Governor of Pondicherry, differing as to the terms of the ransom, it was eventually declared null. The English were compelled to deliver up unconditionally the keys of the Fortress and every thing belonging to it, except personal clothes and jewels, and it is stated that the French realized by plunder Rupees 20,00,000. Some of the English refused their parole and escaped to Fort Saint David; while the Governor and several of the principal inhabitants were taken prisoners to Pondicherry. At the end of the year the Mussalmans under Maphooz Khan, threatened to attack the French at Madras, and proclaimed their intention of assisting the English. Paradis was appointed French Governor, and he added considerably to the strength of the fortifications.

12. On the loss of Fort Saint George, the British Presidency was transferred to Fort Saint David, and about this period the Natives were first enrolled as Sepoys under the English banner. In 1748 Major Lawrence arrived at Madras, with reinforcements, but on proceeding southwards was taken prisoner before Ariancooppam and carried to Pondicherry. In 1749 hostilities ceased. Lawrence was

released and he, together with Wynch and Westcott, were appointed Commissioners to receive back the Fortress.

13. The fortifications were found to have been much improved during the two years they were possessed by the French. The bastions and batteries had been enlarged and strengthened; part of Black Town had been destroyed and with its ruins an excellent glacis on the north side had been formed, and palisades and covert ways in front of the two north gates had been constructed. A glacis on the south had also been commenced; but still the defences were very inferior and incapable of making much resistance against a regular European force; nor had any extension been made of the internal area, which until 1756 did not exceed 15 acres.

14. In 1750, Mr. Benjamin Robins arrived from England as Engineer-General. He immediately planned the improvement of Fort Saint George, but did not live to carry the work out. Some considerable time elapsed before any thing was done, but in 1756 the apprehension of another attack from the French, compelled the Governor in Council to strengthen the fortification. For the next two years 4,000 work people were constantly employed in partially carrying out the work proposed by Robins. The trace of the Fort at the commencement of the last war in 1758 was a semi decagon, closed at the gorge by the sea face. The state of the fortifications at this period is minutely described in the following account from Orme, Vol. 3: "To join the new rampart with the old bastion to the south-west and to gain the ground in the new area which was occupied by the river, its bed was filled up, beginning from the south-west bastion, with earth dug from the edge of the rising ground of the Black Town to the north-west, which the excavation removed 40 yards farther from the works: but only two-thirds of the bed of the river under the old wall had been choked up. The river, stopped in its former channel, was directed in another, which environed the west and part of the south face of the new works, washing in some places the foot of the glacis, until it rejoined its former bed at the head of the spit of sand. The old wall of the western side still remained as a retrenchment to capitulate on, in case the outworks should be carried. The new extension on this side comprised three large bastions and their out-works. The southern of these three bastions communicated with the old bastion, which stood before on the south-west angle, by the curtain raised across the former channel of the river; and this curtain increased the south face of the Fort from 130 to 210 yards. Nevertheless, the works on this side were much less defensible than those to the west and north; but the surface of water and quagmire in the river before it, rendered this front inaccessible, excepting by the labours of a much greater Army, than the present attack. The ground on the north of the Fort gave the besieger much more advantage than on the other sides; and this face was therefore strengthened in proportion: the two former bastions and rampart, as improved and left by the French, were suffered to remain; but the ditch and glacis which they had dug and raised were the one filled up, and the other removed further out, to admit better works. In the front of the north-west bastion was raised another capable of mounting 28 guns; each of the faces were 100 yards in length, and a battalion might be drawn up on its rampart, although a large vacancy was left in the gorge, or back part, to increase the interval towards the former bastion behind, which this was intended to cover: it was, from its superior strength, called the "Royal Bastion." A demi bastion, corresponding with the Royal, was raised before the old north-east bastion, that stood on the beach of the sea, which however, the demi bastion did not entirely envelop; for its right hand or east face extending in a line parallel to the sea, adjoining to the shoulder angle of the northern face of the old bastion, leaving this face free to fire forward, but confining the extent of ground it commanded to the same width as the space between the east face of the demi bastion and the sea: to the westward, the old bastion had two guns clear of the demi bastion, which supplied the defence on this side by four guns in the flank and seven in its northern face. The two new bastions communicated with each other by a broad faussebray that passed along the foot of the old rampart and bastions; this faussebray was defended by a stout parapet seven feet high, which adjoined to the flanks of the new bastions. The ditch on this front was dry, because the ground here was seven feet higher than the level of the canal which supplied the ditches to the west and south; but a cuvette or trench, seven feet deep and 25 feet broad, was dug the whole length of the ditch, which before the faussebray was 180 feet wide, and before the bastions, 90. The covered way of this front was broad and well pallisaded, and contained between the two bastions a large ravelin capable of 18 guns, nine in each of its faces. The glacis was excellent, and little was wanting to complete the defences on this side, excepting Mines, which the want of time and bricklayers had not allowed. The western face had likewise its covered way pallisaded and glacis, and contained three ravelins, of which that in the middle was the largest. The eastern face extended along the beach of the sea within 20 yards of the surf; but ships could not approach near enough to batter it with any effect; and no guns could be brought to bear upon it by land. Before the sea gate, which stands in the middle of the curtain, was a battery of 13 guns; 50 yards on the right of this battery was a platform of old standing, with 14 guns to return salutes, which had hitherto been left without a parapet: the original curtain, although nothing more than a brick wall four feet thick, had never been strengthened; but a trench, six feet deep and ten wide, had lately been dug before it; and a ditch, with pallisades was intended to have been carried round the battery and the platform, but had not been executed at either. The only danger on this side was from a sudden assault or surprize, which would rarely come by boats landing unawares across the surf; but always, and with ease by a body of men passing on the edge of it by either of the bastions at the extremities; to prevent which, a row of anchors, backed by pallisades, and a trench were extended from the neck of each bastion quite into the surf. No buildings, excepting sheds had been raised in the new ground taken in to the westward; and in those of the old, the bombproof lodgments were not sufficient for the security of the garrison."

15. The foregoing was the state of the fortifications in December 1758, when the French Army appeared under the personal command of Lally. It consisted of 3,500 Europeans, 2,000 Sepoys and 2,000 Native and European Cavalry; in all 7,500. The defenders of the garrison on the other hand amounted to only 3,978, of whom 1,605 were English, 153 Topazes and Caffres, and 2,000 Sepoys; besides 150 Non-Military British residents and about 200 of the Nawab's Horse. The defence was entrusted to Governor Pigot, assisted by Lawrence. The attack commenced on the 12th December 1758, and was almost exclusively confined to the north side of the Fort. The enemy's largest battery, consisting of 15 guns and 6 mortars, was placed near the present office of Parry and Co. from whence zigzags and parallels were pushed forward to the north-east bastion. Another battery of 4 guns was planted at the Obelisk near Popham's Broadway. A third, of 10 guns, 500 yards, to the north-west near the present Patcheappah's Hall; and a fourth close to the present General Hospital. There was also a battery of two heavy guns on the south side of the Cooum bar, which was manned from a detachment which had taken possession of the Company's gardens, the site of the present Government House.

16. Mr. J. Call was the Chief Engineer on the side of the British. The siege was raised on the 17th February after the garrison had been shut up 67 days, and the enemies' batteries had been opened 46. The sudden arrival in the road of a convoy of British ships doubtless hastened the enemy's retreat, who after setting fire to the Gun Powder Manufactory decamped towards Pondicherry; leaving behind 52 guns, most of their ammunition, and all their wounded. During the siege the Fort fired 26,554 rounds of cannon; 5,702 shells, and 1,990 hand grenades. The musketry expended 200,000 cartridges, 1,768 barrels of gun powder were used and 30 pieces of cannon and five mortars had been dismounted. The French fired 8,000 shells chiefly directed against the buildings in the Fort, in which nearly every house was demolished. The British lost, in killed, wounded and prisoners, 592 Europeans and 346 natives, besides 400 deserters; but the French loss was never correctly ascertained.

17. Thus ended the last siege of Fort Saint George, since which time it has never been attacked although occasionally threatened by the French, and approached very near to by Hyder Ally in 1767 and 1781. As was to be expected on the close of so memorable a defence, the Fort was then found to be in the most dilapidated state, and it was eventually determined by the Court of Directors and the Madras Government, that it should be thoroughly repaired upon the most approved plans and according to the best modern system of fortification. At the same time the utmost economy was strictly enjoined. In 1760 the Court ordered compensation to be granted to the inhabitants of Black Town for their houses destroyed to clear the Esplanades, and that for the future no encroachments should be allowed.

18. The records of the office of the Commandant of Engineers commence with a letter from Mr. J. Call the Chief Engineer in 1761, wherein that Officer deplores the inefficient state of the works and the slow progress made; and records his opinion that a great responsibility would

rest upon the authorities if ever Madras was again placed in the same dangerous insecurity as it was in 1758. Since the removal of the Presidency from Fort Saint David to Fort Saint George in April 1752, Pagodas 632,234 or 22½ lakhs of rupees had been expended on the fortifications, but part of this sum had been incurred for the siege, while all the disbursement for military stores was also included. Mr. Call considered it would take ten years to render the Fort thoroughly defensible, and complete with barracks, magazines, &c., and that some idea of the great cost might be guessed by the expenditure already incurred.

19. In 1762, the Court of Directors were alarmed at the encroachment of the sea close on the walls of the Fort, and were doubtful whether any works of art would be a sufficient barrier to arrest its progress. The western bastions and curtains were completed and it was proposed during the succeeding year to proceed with the works required for fortifying the south side of the Fort. Several designs for this work were submitted by Mr. Call, but he was summoned to join the Army near Madura, and it does not appear which plan was selected. In 1769, Mr. Call rejoined, and having again resumed charge of the works reported that the following had been completed during his absence, viz., the body of the north ravelin, the bombproofs for guard rooms and magazines; the passage of the gateway; the bridge and the gallery communicating with the ditch; the rampart; the facing of the parapet within and without the banquets; the formation of the merlons and embrasures; the addition to the north-west bastion within the demi one; the continuation of the north curtain to the middle gate; the parapets and embrasures there, and those at the Royal bastions, including the bombproofs and magazines; the faussebraye between the Royal and demi bastion, and a gateway opened through to the north ravelin; the caponiere with its banquets on each side, and the traverses near the gorge; the wet ditch 50 feet broad and 7 deep had been faced all round on both sides before the demi bastion; also the Royal bastion and the bombproofs, the Officers' barracks, together with considerable repairs and renewals to the Civil buildings in the Fort.

20. After thus enumerating the above completed works, Mr. Call proceeded to recommend that the ditch around St. George's ravelin should be at once finished; but that in consequence of the general financial pressure, the monthly expenditure on the fortifications should be limited to 2,000 pagodas.

21. In the following year Mr. Call was succeeded by Colonel Ross, "a gentleman of great character and repute in his profession," who submitted revised plans for the completion of all the fortifications, and by whose energy and skill they were successfully brought to completion in 1787.

22. Up to the year 1806 there appears to have been no regular armament for the Fort, but in that year it was ordered that the armament should consist of the following pieces of ordnance :—

11	smooth-bore	42-pounder	guns.
90	do.	32	do.
260	do.	24	do.
135	do.	18	do.
28	do.	12	do.
58	do.	9	do.
11	do.	13-inch	mortars.
14	do.	10	do.

23. In 1869, on the recommendation of His Excellency the Commander-in-Chief, a committee assembled for the purpose of considering how far the armament of the Fort could be reduced with safety, and the remaining guns distributed so as to ensure the most efficient defence. On the recommendation of this committee the Government of Madras directed that the armament of the Fort should be as follows :—

6	rifled breech-loading	7-inch	guns.
28	smooth-bore	68-pounder	guns.
3	do.	32	do.
31	do.	24	do.
2	do.	18	do.
1	do.	8-inch	gun.
3	do.	10-inch	mortars.

24. In 1879, in order to afford further protection to the Fort, the sea-face of which was not considered strong enough to carry sufficiently heavy ordnance, three batteries were ordered to be constructed on the beach, for the reception each of two 9-inch rifled muzzle-loading 12-ton guns. The old work, known as "Clive's Battery," north of the pier, being converted so as to be suitable for two of these new guns, the other two batteries being erected one in the vicinity of the Lighthouse, and the other in that of the iron bridge known as the Napier bridge. The armament of the Fort was subsequently again modified, and finally in 1880 it was ordered that the ordnance of the works of Fort Saint George should consist as follows :—

6 rifled muzzle-loading $\frac{80}{68}$ pounder guns,
38 smooth-bore 24-pounder guns,
3 do. 10-inch mortars,
2 gatling guns,

the six 9-inch muzzle-loading rifle guns on the beach batteries being considered as part of the Fort armament.

APPENDIX No. XLIV.

HISTORY OF STORMS ON THE MADRAS COAST.

1789, *Coringa.*—In December 1789 Coringa was utterly destroyed by a succession of three great waves which rolled in upon it, apparently during a hurricane-cyclone. M. De La Place, of the French frigate 'La Favorite,' who collected his account on the spot, about 1840, says, vol. 1, p. 285, of his voyage :—"Coringa was destroyed in a single day. A frightful phenomenon reduced it to its present state. In the month of December 1789, at the moment when a high tide was at its highest point, and that the N.E. wind blowing with fury accumulated the waters at the head of the bay, the unfortunate inhabitants of Coringa saw with terror three monstrous waves coming in from the sea, and following each other at a short distance. The first sweeping every thing on its passage, brought several feet of water into the town ; the second augmented these ravages by inundating all the low country ; and the third overwhelmed everything." The town and twenty thousand of its inhabitants disappeared ; vessels at anchor at the mouth of the river were carried into the plains surrounding Yanam, which suffered considerably. The sea in retiring left heaps of sand and mud, which rendered all search for the property or bodies impossible, and shut up the mouth of the river for large ships. The only trace of the ancient town which now remains is the house of the Master Attendant and the dockyards surrounding it.

1787, *Injaram.*—A second hurricane described by an eye-witness occurred 1787 at Injaram :—"From the 17th of May it blew hard from the E.N.E., but nothing was apprehended. On the 19th, at night, it increased to a hard gale, and on the 20th, in the morning, it was a perfect hurricane, untiling houses and beating indoors and windows, blowing down walls, &c. A little before 11 it came with violence from the sea, and I saw a multitude of the inhabitants crowding towards my house, crying out that the sea was coming upon us. I cast my eyes in that direction, and saw it approaching with great rapidity, bearing much the same appearance as the (bore) in Bengal river. I took refuge in the old factory, which is built on a high spot and well elevated, so that we were not driven to the terrace. I think the sea must have risen fifteen feet above its natural level. The wind favored the subsidence of the water (at 1½ P.M.) by coming to the south, where it blew the hardest. At 5 I got to another house during a lull. It blew very hard the greatest part of the night, and at midnight veered to the westward, and was so cold I thought we should have perished as we reclined in our chairs. The gale broke up towards the morning. The natives have a tradition that about a century ago the sea ran as high as the tallest palmyra trees (forty-five to fifty feet at least). Everything was destroyed with us, but at Coringa and nearer the sea not more than twenty inhabitants out of the 4,000 were saved. At first with them the sea rose gradually with the tide ; when it increased they mounted on the roofs of their houses till the sea, impelled by a strong easterly wind, rushed in upon them most furiously, when all the houses at the same awful moment gave way. This was seen from the terrace of Mr. Corsar's house, over which the sea sometimes broke, and where the wrecks of vessels were seen drifting past. At Juggernautpooram about a thousand lives were lost, and the inundation extended as far north as fifteen miles N.N.E. from Injaram on the coast, but not many lives were lost there. It penetrated about twenty miles inland. It is computed that 20,000 souls and 500,000 cattle perished." The writer further remarks that it was considered very remarkable that the vast tract of low ground from Gotandy to Bundermalanka, on the south side of the Godavery, which is often overflowed by the spring tides, suffered very little. He considers that point Godavery and the small low islands near it broke the force of the sea.

1839, *Coringa.*—In 1839 Coringa was visited by another of these storms, which, by the Collector's report, much resembled the one above described, to which, indeed, the old inhabitants seem to have compared it. There are no accounts of distinct waves in this last storm, but the rise of the waters of the sea is described by one writer as rushing in with such violence that "the only houses remaining at Coringa are a particular large house and three or four other brick-built houses. More than 20,000 persons are said to have perished. Vessels were drifted from the docks and rivers, and a large sloop (of 50 to 150 tons burden) carried four miles inland." A writer says : "I visited Coringa about a month after the cyclone of 1830, and could relate facts which would be thought traveller's tales. The number of vessels of from 100 to 200 tons that were high and dry, miles inland, some bottom up, gave the country the appearance of having been visited by a party of gigantic demons, who had been throwing the huge hulls at one another."

1746, *Madras Roads.*—The next hurricane to be recorded was that of the 3rd October 1746, twenty-three days after the surrender of Madras to M. de Labourdonnais. On the 2nd of October the weather was remarkably mild during the whole of the day, but about midnight a most furious tempest arose, which continued with great violence till noon of the following day. When it began there were six large French ships in the Madras roads and some smaller ones. The 'Duc d'Orleans,' 'Phœnix,' and 'Lys' put to sea and foundered, and in them upwards of twelve hundred men were lost. The 'Mermaid' and 'Advice,' prizes, shared the same fate, the 'Achille' (the flagship of M. de Labourdonnais) and two other vessels of war were dismasted, and they had shipped so much water that the people on board expected them to go down every minute, notwithstanding they had thrown overboard the lower tier of guns. Of twenty other vessels belonging to different nations in the Madras roads, when the storm began, not one escaped, being either wrecked or lost at sea. The ships which were at anchor in the road of Pondicherry felt nothing of this hurricane.

1761, *Pondicherry.*—The new year of 1761 was ushered in with a most violent hurricane at Pondicherry. At this time the English were laying siege to that town, and the fleet were in the roads intercepting all succour by sea. When the storm began Admiral Stevens had with him eight sail of the line, two frigates, a fire-ship, and a ship with stores. From 8 P.M. of the 31st December till 10 P.M., there was a constant succession of very heavy squalls. About 10 P.M. Admiral Stevens in the 'Norfolk' (having for his captain the gallant and unfortunate Kempenfelt) was forced to cut his cable and made the signal for the squadron to do the same ; but the noise and violence of the gale was such that no guns could be heard or signals observed. The other commanders accordingly obeyed previous orders, and continued at anchor till at length their vessels parted, and then with the greatest difficulty they got their ships before the wind with scarce any sails set. The gale continued to increase until midnight, by which time the wind had veered from N.N.W., where it began to the N.E., and in an instant it was succeeded by a calm accompanied by a thick haze. The first gust of the hurricane from S.E. laid the 'Panther' on her beam ends, when the sea breaking over her, Captain Affleck ordered the mizenmast to be cut away ; this not relieving the ship, he ordered the mainmast to be cut away likewise ; it broke below the upper deck with such force that it tore it up, and the mast and rigging hanging over the side continued to encumber the ship for a considerable time until a heavy sea cleared them. The ship then righted, and the reefed foresail having withstood the violence of the gale by means of it, they got back into fourteen fathoms water, and there let go the sheet anchor, but not bringing up, they cut away the foremast, the fall of which carried away the bowsprit, when the ship came round, and in this manner rode out the storm. The 'America,' 'Medway,' and 'Falmouth' were dismasted, and after much distress came to an anchor near the 'Panther,' but it did not fare so well with the 'Newcastle,' the 'Queenborough' frigate, and the 'Protector' fire-ship, who, scudding before the S.E. gales

mistook their soundings and drew towards the shore without endeavouring to come to an anchor. The roaring of the wind prevented them from hearing the noise of the surf till it was too late. All then came ashore about two miles south of Pondicherry. Of their crews only seven perished, who were dashed overboard by the violence with which the ships struck when they took the ground. A more miserable fate attended the 'Duc d' Acquitaine,' the 'Sunderland,' and the 'Duke' store-ship. Their masts withstood both hurricanes, but they were driven back by the S.E. tempest, and were under the necessity of anchoring, when, bringing up with all their masts standing, they brooched to and either capsized or foundered. The crews, in number eleven hundred, perished, except seven Europeans and as many lascars who were next day picked up floating on pieces of wreck.

1782, *Madras Roads.*—The next hurricane to be noticed was that of 1782. The weather had been threatening, and when it came on to blow on the 20th October the boats belonging to Sir E. Hughes' squadron (then in the roads) were on shore with their crews on duty. The gale commenced at N.W., and every vessel that could bear canvas put to sea. Most of the men-of-war boats put off to their ships, which were getting under weigh, and were reached with difficulty by the larger boats and some of the smaller; but some boats were unable to reach their vessels, and were lost. The 'Superb' was dismasted and the 'Exeter' was almost rendered a wreck. Sir Edward Hughes was obliged to shift his flag to the 'Sultan.' Both the 'Superb' and 'Exeter' got to Bombay with jurymasts. The 'Necker' (a country vessel) lost her mainmast, and some vessels foundered at their anchors. The morning following the hurricane presented a sad spectacle. Upwards of 100 small country vessels stranded on the beach, the whole remaining stock of rice in the warehouses washed away, famine raging, and pestilence threatening; for the ravages of Hyder had driven thousands from the country to Madras, where already there had been great suffering for want of food. Upwards of 1,000 corpses were buried every week, for several weeks, in large trenches outside the town.

1807.—Madras suffered from another hurricane on the 10th December 1807. Fortunately there was only one vessel in the roads when the storm commenced, and she put to sea. To show the effect of the storm-waves, it may be mentioned from the testimony of an eye-witness (Captain Biden, the Master Attendant) that the bottom of a ship of 800 tons, supposed to have been burnt in the roads about 10 years before (in 1797), was washed high and dry on the beach near Messrs. Parry and Co.'s office; the whole of her floor was perfect with a large quantity of her ballast (pigs of iron kentledge). The devastation along the beach and in the town and suburbs of Madras was very great. It was during this hurricane that there occurred an extraordinary rise of the tide which inundated the whole of the Black Town.

1811.—Another most disastrous hurricane occurred on the 2nd of May 1811. Providentially the fleet with the troops for the attack of Java had just sailed. The 'Dover' frigate and 'Chichester' store-ship remained in the roads; they parted and were lost. Ninety country vessels went down at their anchors. Only two vessels that were in the roads when the hurricane set in were saved, and these put to sea. During this hurricane the surf broke in nine fathoms water four miles from shore.

1818.—On the 24th October 1818 Madras again suffered. The wind commenced at north, and, after increasing in violence, suddenly lulled, and suddenly flew round furiously to south. This hurricane travelled west and its vortex passed over the town. The barometer fell to 28·78.

1820.—On the 9th October 1820 there was a hurricane commencing at N.W. veering to W. and S.W. The barometer fell to 28·50. Here the cyclone travelled west and passed to the north of Madras.

1836.—On the 30th October 1836 a gale set in from north. At 4 P.M. it blew a regular hurricane from N.N.W. and N. After an ominous lull of half an hour, it flew round with redoubled violence from the south at ½ past 7 P.M. At this time the barometer was 28·285.

1843.—In May 1843 another hurricane occurred. On this occasion the brunt of it was felt out at the sea, and several vessels were lost. Those that remained at their anchors rode it out.

1846.—The next hurricane took place on the 25th November 1846. It was during this hurricane that the pressure-plate of the Observatory anemometer broke at a pressure of 40 lb. registered, and the force of one heavy gust was computed at 57 lb. per square foot. The large iron wind vane of the Observatory was bent to a right angle, and one of the flat piers on the Elphinstone Bridge blown over. These formed the data for computation. The previous month there had been an unprecedented fall of rain (20¾ inches in twenty-four hours). Had the hurricane set in before the soil had dried, not a single building or tree in Madras would have remained upright.

1853.—A hurricane again occurred in March 1853. On the 26th of March the wind had shifted to N.E. and was blowing in fitful gusts with squalls. On the 27th the squalls had increased in violence, accompanied with heavy rain, and at noon showed a tendency to veer to the eastward. The barometer, however, did not show any marked descent, and the ships were not signalled to proceed to sea. At 4 P.M. the wind had veered to east, showing that the vortex of the storm had passed to the southward of Madras. Several dhonies and native craft had parted and put to sea previously, but the English vessels were in great danger. At 5 P.M. the Portuguese brig 'Nostha Cenora de Monte' parted; sail was promptly made, but her mainboom and fore-topsail sheets having carried away, she was rendered powerless. A tremendous sea capsized her, and having subsequently taken the ground, she went to pieces, and not a vestige of her remained. Between 6 and 8 the gale was at its height, and the wind tending to the southward of east showed that the vortex had reached the land and passed the meridian of Madras. The English ships 'Serampore' of 873 tons, 'Aboukir' 816 tons, 'Lutchmee' 432 tons, all drifted on shore between the High Court buildings and the Royapooram terminus, and became total wrecks. The whole of the 'Lutchmee's' crew, sixteen in number, were saved, but the 'Aboukir' lost five of her crew, and the 'Serampore' eighteen men. The ship 'Devonshire' held on at her anchors till 11 P.M., and, having then parted, sail was made, and she cleared the coast in the port-tack under a press of canvas, but not before she had struck once near the fort, causing her to leak at the rate of one foot an hour. To the southward the cyclone was felt in all its intensity. All the vessels in Pondicherry put to sea, and, with one exception, were lost during the night on the coast. At Negapatam the hurricane raged from N.N.W., and between 4 and 5 P.M., the central calm was experienced with a shift of wind to the S.E., thus demonstrating that the vortex passed directly over the roadstead travelling in from east to west. The influence of this cyclone was felt across the peninsula at Calicut on the night of the 27th. Six native craft foundered at their anchors in Madras roads, and fifteen drifted on shore and were lost.

1858.—The next cyclone occurred in May 1858, when the Norwegian ship 'Eclipse,' the British ship 'Godavery,' the American ship 'Wales' drifted on shore on the beach, and became total wrecks. Their crews were, however, all saved.

1863 and 1864.—In October 1863 and November 1864 minor gales occurred, in which the ships 'Punjaub,' 'Petri,' 'Ama,' and 'Eva' all drifted on shore and were wrecked.

1865.—In November 1865 Madras was visited by a heavy cyclone, which proved very destructive to shipping. On the 24th November no less than thirty-four vessels lay at anchor in the roads, and they put to sea on the usual signal from the Master Attendant's office on the 25th idem. On the evening of this day the vortex was steering in for the land between Madras and Cuddalore, and the unfortunate shipping with a N.N.E. gale and a heavy sea stood out and drifted into the more violent portion of circle, and met with severe disasters. Of the whole number, sixteen returned to Madras injured and damaged either in hull, boats, or spars. Some of them in jurymasts. The 'Great Britain' of 522 tons was never heard of again with all her crew. Six vessels were abandoned at sea, four were dismasted and put into Trinomallee for repairs. The effects of the storm were not felt on shore at Madras to any great degree. The barometer did not fall lower than 29°—60°, and the velocity of the wind reached forty-three miles per hour corresponding to a pressure of 9¼ lb. to the square foot. The total amount of rainfall was 12·36 inches. The wind veered from N.N.E. to east and south-east, thus showing that Madras was placed on the right-hand semicircle of the storm, the vortex having passed ot the southward of it.

1872.—The next hurricane to be placed on record is the memorable one of May 1872. The wind had shifted on Tuesday the 30th April 1872 and blew in squalls with rain from the northward. The morning of the 1st May set in with occasional squalls from the north and a heavy surf, but the sea in the roads was comparatively moderate, and the ships riding very easy. On the afternoon of this day it was noticed that the weather had cleared up and the wind had somewhat moderated; it was, therefore, hoped that Madras was but under the influence of a passing storm, and the usual barometric tide was uninterrupted. At 10 P.M., however, the barometer showed a decided downward tendency, the squalls became more violent, and as the wind was northerly, veering occasionally to N.N.E., and, therefore, favorable for leaving the roads, the usual

night signal was made at midnight to warn the shipping of an approaching gale, the first warning from the Astronomer having only then been received. At daylight it was discovered that none of the vessels had left, and the signal was made by flag to cut or slip. About 1 A.M. on the 2nd instant a dhony ran ashore off the granary, followed shortly afterwards by two more, both of which struck the Pier in shore on its north side without causing much damage. Just at dawn two country vessels drifted on to the Pier, both of them causing a breach and passing right through from north to south. Shortly after this the storm increased in force, and a heavy and tumultuous sea was breaking all over the roadstead as far as eight fathoms of water, and the barometer had fallen to 29·40, the wind shifting to N.N.E. About 6 A.M. the 'Burlington' was seen drifting; she eventually parted and came helplessly on shore. At 7 the 'Ardbeg,' coal laden, parted and ran before the wind with a topmast stay-sail set; but no more sail of any kind was afterwards attempted to be set, and she eventually drifted on shore near the light-house, where she went to pieces in a few minutes. She was followed by the 'Invershie' and by the 'Sir Robert Seppings,' the latter vessel with 271 emigrants on board for the Mauritius. These vessels struck off the fort and off the light-house respectively at about 9 A.M. Between the hours of 10 and 11, the 'Kingdom of Belgium,' the 'Armenian,' the 'John Scott,' the 'Hotspur,' and the 'Misser' all drifted on shore, the 'Hotspur' and the 'Misser' being the last to take the ground. The 'Evelyn,' finding she was dragging, cut away her main and mizzen masts at about 11 A.M., and rode out the gale. The 'Inverness' and 'Bonnie Dundee' also rode out the gale without damage to either, and the commanders of these vessels attribute their safety solely to the fact of their ships having been anchored in and beyond nine fathoms of water, which used to be the regular anchorage in former years. The rocket apparatus was sent for at daylight and arrived soon after on the scene, and the crews of the wrecked vessels were landed by means of communication established by its agency. The crews of the 'Burlington' and 'Invershie' were landed by 9 A.M. The work of landing the emigrants from the 'Seppings' commenced shortly afterwards and lasted all day till 5 P.M. The 'Kingdom of Belgium,' 'Armenian,' and 'John Scott' were cleared by noon. The last man landed from the 'Misser' at 2 P.M. The 'Ardbeg' broke up, and her commander, who reached the shore alive, died of injuries received from floating wreck. Till about 11 A.M. the beach was comparatively clear for working, there being but few visitors, and, with the aid rendered by the men of the 21st Fusiliers to the officers of the Marine Department and a party of artillerymen, the work of saving life proceeded uninterruptedly. It was at this time that the 'Hotspur' struck just outside of the wreck and debris of three other vessels, which rendered communication with her very difficult. Over an hour passed before a rocket could be got to reach the vessel with any success, as the rocket lines invariably fouled the adjacent wrecks and carried away. By about 1 P.M. a good-sized English rope was passed between her and the shore; but too great a strain was brought to bear upon it by several hundreds of people all dragging it simultaneously, and it parted at the critical time that a lad from the 'Hotspur' was endeavouring to bring a line from the vessel to the shore. The process of rocket-firing was again gone through, and another line made fast between the vessel and the shore; but by this time the afternoon was waning, and a few of the crew, among whom was the chief officer, Mr. Backary, swam on shore, and miraculously escaped with their lives. One man got ashore by a line fastened to the wreck of a vessel near shore, which was at a higher elevation than the wreck of the 'Hotspur;' but Mr. Boodle, Third Officer, and Rabbit, a cabin boy, lost their lives from attempting to save themselves by it. Nothing further could be done regarding the crew of the 'Hotspur;' but the weather rapidly began to moderate, and they were taken off the wreck at daylight by a masulah boat. The 'Inverness' was not laden sufficiently to encounter the force of the hurricane at sea; the 'Armenian' and 'John Scott' were in a similar predicament, being in ballast trim; the 'Ardbeg' could not slip, as she would have fouled the 'John Scott' had she done so, and been disabled at once; and the 'Invershie' drifted on shore with her heavy sheers uprighted and gear unrigged, while the 'Sir Robert Seppings' embarked her coolies on the 29th ultimo, and might have gone to sea at the latest on the morning of the 1st instant.

1874.—This port was again visited by a cyclone in May 1874. The cyclone travelled obliquely up the Bay of Bengal, its influence being felt from the night of Sunday the 3rd May until noon of the 6th instant. The strength of the wind during the height of the storm from 8 P.M. of the 5th to 2 A.M. of the 6th idem, during which it veered from the northward to the eastward, closely approached to that of the cyclone of May 1872, viz., fifty-one miles per hour against fifty-three in 1872, while the depth of rainfall has been 7 inches. The appearance of the weather on Monday the 4th being very suspicious and threatening, the warning signal was hoisted in the evening, and during the whole night communications were constantly passing by wire between the Master Attendant's office and the Observatory, which resulted in not a doubt being entertained that a storm was imminent. At 3 A.M. of the 5th, the wind being north-westerly and increasing in force, and its direction being well suited for gaining an offing, the signal was made for the ships to put to sea, not having at the time any data for estimating the probable distance of the danger. On hoisting the warning signal on the previous evening the Cyclone Code came into operation, and all the necessary precautions were duly taken, and all the various departments held themselves in readiness in accordance with the Code. At daylight the steamers in the roads left and put to sea, but observing a delay in the other vessels in obeying the signal, the usual notice was repeated by the guns from the fort, and some urgent special signals from the Commercial Code were also added to induce the sailing ships to take their departure. The first vessel was a French Barque called the 'St. Ann,' and she was rapidly followed by the other vessels, the last one leaving at noon. The dhonies made no attempt to weigh or slip, but gradually dragged their anchors and drifted away to the south-eastward, two small craft remaining at their anchors in the evening, but well to the southward of the Pier, and out of danger to it. One of these vessels drifted away during the night, and one dhony named 'Shree Vencataswerloo' has been stranded off St. Thomé, when the crew were miraculously saved. But for the vessels having put to sea a similar accident to that in 1872 must have occurred, as they could not have ridden out the weather during the shift of wind on the night of the 5th instant.

1881.—On the 12th November 1881 the effects of a cyclonic gale, which struck the coast to the southward, were experienced at Madras. The greatest velocity of wind registered at the Observatory was only 32 miles, compared with a velocity of 52 miles per hour in the May cyclone of 1872; but the effects of the gale were most disastrous to the new harbour works, then in process of construction. Nearly the whole of the curved arms were destroyed, and two barges, which had been fastened together with heavy teak beams to form a platform for screwing down the harbour moorings, broke adrift and foundered. Fourteen lives were lost including that of the master. This cyclone struck Madras with great suddenness and various opinions have been expressed as to the height and force of the sea. The Government Astronomer describes it as "having exhausted its greatest force while crossing the bay before reaching the coast of Southern India, which would account for the high destructive sea far beyond what might have been expected from the meteorological indications accompanying its progress." Mr. Molesworth, who was deputed by the Government of India to examine the harbour works immediately after the occurrence, considered that, owing to the point at which the cyclone had its origin somewhere in latitude 10°, and the path followed till it struck the coast a little north of Pondicherry in latitude 12°, the wave of translation thus generated at a distance from the shore proved itself to be a most formidable agent of destruction, very much more so than any mere surface waves which could have assailed the work. Great weight must no doubt be attached to the opinion of so distinguished an engineer, but the Marine authorities and other practical seamen who witnessed this and other storms are unanimous in their opinion that the sea, though much higher than might fairly be expected from the low wind pressure, was not of exceptional height, and certainly less than that of 1872, and this view must apparently be accepted as correct. The damage to the works consisted of half-a-mile of breakwater breached, and, on an average, the two top courses of concrete blocks thrown over into the harbour, two Titan cranes overthrown and destroyed, a mile-and-a-half of single line of railway destroyed, the rubble base lowered and spread out, and the twin barges employed in fixing the moorings foundered and lost. There was, besides, a good deal of minor damage, such as the loss of small boats, injury to the platform, piles and bracing of the iron pier, encroachment of the sea at Royapooram and damage to the boundary walls and outbuildings of private property in that neighbourhood. On the 29th, 30th, and 31st December 1881 another cyclone passed over Madras, but having its centre near that place, the sea was not very high and no further injury was sustained by the harbour works.

APPENDIX No. XLV.

DETAILS OF ATTACHED NATIVE STATES FOR 1883-84.

(1.) *Internal Condition.*

Name of state.	In subsidiary alliance or feudatory.	Tribute in men or money.	Population.	Supposed gross revenue.	Military force.	Transit duties or not.	Principal articles of production, including manufactures and mines.
1. Travancore ...	In subsidiary alliance.	In money Rs. 8,10,000 per annum.	2,401,158 according to the census of 1881.	Rs. 60,22,544 ...	1,360 infantry, 60 cavalry, and 30 artillery with four guns; drummers, fifers, and band not included.	None ...	Pepper, cardamoms, cocoanut, areca-nut, tamarind, coffee, jack, tapioca and yams, rice, horse-gram, green-gram, doll and gingelly, laurel-nut, teak and other timber. Manufactures consist of cocoanut, gingelly, lemon-grass and laurel oils; also jaggery and molasses, salt, arrack, cotton cloths, pottery, coir yarn, coir rope, and coir matting. There are no mines regularly worked, but plumbago is found.
2. Cochin	In subsidiary alliance with the British Government.	In money Rs. 2,00,000.	600,278 souls according to the census taken in 1881.	Rs. 15,77,601-12-9.	318	Do. ...	Paddy, cocoanut, coffee, pepper, timber, cardamoms, areca-nuts, hides, cocoanut-oil, mats, coir yarn, coir mats, grass mats.
3. Poodoocottah ...	No regular treaty, but the Rajah is considered as an ally subject to the advice of the British Government.	None	300,591 ...	Rs. 6,40,000 ...	3,615 including village police.	Do. ...	Paddy and dry grains. Iron ore is also found in places, but not in great quantities; earth-salt and saltpetre, white cloths, cumblies, and mats. There are also looms for weaving silk.
4. Bunganapully ...	In subsidiary alliance.	Do.	30,754 ...	Rs. 2,01,564 ...	None	Do. ...	Jonna (Holcus sorghum), saddza (Holcus spicatus), korraloo (Panicum Italicum), areca (Paspalum frumentaceum), indigo, cotton, mangoes, oranges, country cloth, lacquered ware, and small diamond mine.
5. Sundoor ...	Feudatory	Do.	10,530 ...	Rs. 40,000 ...	Do.	Do. ...	Cholam, tobacco, sugar-cane, betel-leaves, and iron.

(2.) *Particulars of ruling families.*

Name of individual and state and family to which he belongs.	Present position.	Caste or race and religion.	Age.	How educated.	How employed.	Has sunnud authorizing adoption or not.	Family follows primogeniture or not.	Has male heirs or not.	Remarks.
1. TRAVANCORE STATE.									
Name.—His Highness Rama Vurmah, G.C.S.I., a Fellow of the Madras University (*since deceased*).	The Maharajah (regnant).	*Caste.*—Cshatriya. *Race.*—Race of Cherma Permaul. *Religion.*—Hindooism.	46	By private tutors.	Rules the country.	Has the right of adopting nieces to perpetuate the line.	Descent in the female line.	All those mentioned in column 1 are heirs to the throne.	
His Highness Ravee Vurmah (*a*).	......		48	Do. ...	Private life				(*a*) The Maharajah's elder brother. He is of unsound mind.
His Highness Rama Vurmah.	The Elliah Rajah (nephew).		26	Do. ...	Do.				
His Highness Kerala Vurmah.	The 1st Prince (grand nephew).		19	Do. ...	Do.				
His Highness Rama Vurmah.	The 2nd Prince (grand nephew).		16	Do. ...	Under tuition.				
His Highness Martanda Vurmah.	The 3rd Prince (grand nephew).		12	Do. ...	Under tuition.				
Family Name. — Tripandatt Swaroopam.									

Particulars of ruling families—(Continued).

Name of individual and state and family to which he belongs.	Present position.	Caste or race and religion.	Age.	How educated.	How employed.	Has sunnud authorizing adoption or not.	Family follows primogeniture or not.	Has male heirs or not.	Remarks.
2. COCHIN STATE.									
Name.—His Highness Rama Vurmah of Peroompadappoo Swaroopam.	Rajah ...	*Caste.*—Cshatriya. *Religion.*—Hindooism.	48	Private tuition in Malayalam and Sanscrit.	In governing the country.	Holds sunnud authorizing adoption.	Succession devolves on the eldest male members of the family according to Malabar law.	Has male heirs.	
3. POODOOCOTTAH.									
Name.—His Excellency Rajah Ramchendra Tondiman Bahaudur. *Family Name.*—Poodoocottah Tondiman.	Independent...	*Caste.*—Kullar ... *Religion.*—Shiva Sect.	55	Speaks and writes English well; has had fair education, but has not kept up his studies thoroughly.	Not studious; fond of shikar.	Yes ...	Yes ...	Has one by adoption.	
Principal male member of the ruling family.—Balasoobrahmanya Ragoonath Tondiman, nephew to His Excellency the Rajah.	Has a jagheer which descended to him from his father, the late brother of His Excellency the present Rajah.	Do. ...	21	Being educated in the Presidency College at Madras. Has matriculated.	A student.	...	...	...	
4. BUNGANAPULLY.									
Syed Fath Ally Khan Bahaudur, C.S.I., Nawab of Bunganapully State, nephew and son-in-law of the late Nawab Syed Ghoolam Ally Khan Bahaudur.	Nawab of Bunganapully State.	Mussalman of Shiah Sect and Syed.	35	By private tutor...	In administering his state.	If no male issue, nearest relation is taken for the State.	Yes ...	Has two sons, by name Ghoolam AllyKhan Bahaudur and Ashed AllyKhan Bahaudur.	
Syed Moortezah Ally Khan Bahaudur, youngest brother of the present Nawab.	Under the control of the Nawab.	Do. ...	31	Do. ...	Reading ...	Do. ...	Do. ...	None.	
Syed Ghoolam Ally Khan Bahaudur, son of the present Nawab.	Do. ...	Do. ...	10	Do. ...	Do. ...	Do. ...	Do. ...	Do.	
Syed Ashed Ally Khan Bahaudur, son of the present Nawab.	Do. ...	Do. ...	4	......	...	...	...	...	
5. SUNDOOR.									
Ramchendra Vittala Row Sahib, descended from Mallojee Row Ghorepadde, an officer in the army of the Beejapore State.	Rajah ...	Mahratta ...	34	Privately ...	In administering his State.	Adoption allowed under Lord Canning's sunnud.	Yes ...	None.	
Bala Sahib	Brother ...	Do. ...	25	Do. ...	...	...	...	Do.	

APPENDIX No. XLVI.

SKETCH OF THE INTERNAL ADMINISTRATION OF TRAVANCORE STATE.

Census.—A census has recently been carried out in Travancore. The rules and arrangements were nearly the same as those adopted in British India. There was first a registration of houses, then a preliminary house-to-house enumeration occupying 29 days and finally a synchronous enumeration of the population of the whole State in one day, the 17th February 1881. The results gave the population at 2,401,158 against 2,311,379 returned by the census of 1875, showing an increase of 89,799 souls, or 3·8 per cent. in a period of nearly 6 years. Taking the most important divisions of the community, the figures stand as follows:—Hindoos 1,755,610, or 73·2 per cent.; Christians 498,542, or 20·29 per cent.; Mahomedans 146,909, or 6·12 per cent. The most noteworthy feature in these figures is the large proportion of Christians amounting to upwards of 20 per cent. of the population against 2·28 per cent. in the British portion of the Presidency. In Tinnevelly where this element is strongest the proportion does not rise above 9 per cent. In fact the total Christian population of the whole Madras Presidency is only ⅗ths more than that of Travancore. Travancore Christians may be classified thus:—Syrian Christians 287,409; Roman Catholics 153,815; Protestants 57,318. The Hindoos are divided in the census tables into 81 major heads of castes, but nearly 49 per cent. of the total is comprised in the two principal castes, Malayalies, Shoodras and Yeloovars, corresponding to the Nayars and Teeyars of Malabar. The Brahmins number 37,138, of whom 25,224 are classed as foreign Brahmins. In the matter of education Brahmins, as might be expected, take the lead, 50 per cent. being returned as educated. Among the Nayars the proportion is 21 per cent. Taking the percentage throughout for educated persons it is 11·08 among the males and 46 among females compared with the figures 9·4 and ·16 in the Madras Presidency generally. Looking at the population of the country as now ascertained with respect to area it amounts to 356·7 per square mile. The average in British territory is 22, and the only districts in which the density of population exceeds Travancore are Vizagapatam, where it amounts to 515, and Tanjore, where it rises to 583. The great increase in the lastnamed district is evidently due to the fact that there is hardly any unoccupied area in it, whereas in Travancore as in Malabar large areas of primeval forest exist, much of which can never be inhabited.

2. *Taxation.*—The census shows that the total revenue raised in the State in that year amounted to 1 rupee 14 annas 4·2 pies per head of the population, or about 6 annas less than in the British territory. The average incidence of the land tax was 11 annas 8·6 pies per head as against 1 rupee 6 annas in British territory. This difference, however, is in part counterbalanced by the excess in customs, a great part of which is export duty on agricultural produce. The salt revenue amounted to 8⅝ annas per head, which is somewhat in excess of the average throughout the British territory. The salt consumed, however, is mostly Bombay salt, the extra cost of carriage of which is now included in the selling price. Fish-curing is also largely carried on.

3. *Judicial System.*—Zillah Courts were first established in Travancore in 1811. They were seven in number, and were placed under the orders of the Diwan, who was then supreme head of all departments. The term regulation had not then come into use. All measures of State were made known by royal proclamations under Sign Manual, or by Sattavariyolas or Hookumnamahs. The duty of these courts was to inquire into all cases brought before them, civil, criminal, or police, and to report to the Diwan, whose approval in each was necessary to give effect to their proceedings. This patriarchal system remained in force till 1814, when an Appellate Huzoor Court was formed for the hearing of appeals from the decisions of the Zillah Courts. This court still formed rather an appendage of the Diwan's Cutcherry than an independent Court of Justice. In 1817, Tahsildars, who were up to that time confined exclusively to revenue duties, were for the first time invested with jurisdiction in petty cases of police. The first experiment was tried in the outlying talook of Shencottah, adjoining British territory. In 1831 Moonsif Courts were created, vested with jurisdiction in petty police cases and in civil suits not exceeding Rupees 100 in value. In 1834 a general scheme of judicial administration was conceived, founded on the arrangements obtaining in the Madras Presidency, and was carried out by means of seven regulations. Regulation I prescribed the general powers and functions of Moonsifs, together with rules of general procedure to be observed in the trial of civil suits. Regulation II provided for the adjudication of suits by punchayets. Regulation III laid down the procedure for execution by Moonsifs of decrees passed by all the courts. Regulation IV revised the powers and constitution of Zillah Courts. Regulation V created the Appeal Court subsequently called the Sudder. Regulation VI invested the Tahsildars with police powers. Regulation VII created Circuit Judges, and, in addition to defining their powers, laid down the procedure to be observed in the trial and commitment of criminal cases. These regulations, though modified subsequently in some respects, form still the groundwork of the present judicial machinery. In 1847 sub-officers of police were appointed to exercise the powers of the police officer or Tahsildar during his absence for the commitment of cases only. In 1849 a regulation was passed reducing the number of Moonsifs and relieving them of the duty of executing decrees passed by the Appeal and Zillah Courts. In the same year a law was passed to enable parties to sue in 'formâ pauperis'. In 1854 an important administrative change was made. Revenue divisions were formed and the Diwan Peshcars, who were till then doing duty in the Huzoor Cutcherry in charge of special departments under the orders of the Diwan, were sent out to take charge of them with powers of general control and supervision in all matters, revenue, magisterial, and police. They were still subject to the orders of the Diwan as head of the Administration and Chief Magistrate. In 1856 Circuit Courts were abolished and Sessions Courts, three in number, were constituted in their place. In 1860 Sessions Courts were in their turn abolished, and the Zillah Judges were invested with the full powers of the former Circuit Judges. This regulation provided also for the adoption of the scale of punishments prescribed in the Penal Code of British India. It also conferred on single judges jurisdiction in causes up to Rupees 300, and in 1862 appeals in such cases were made inadmissible; but this was rescinded and superseded by Regulation II of 1865, by which small causes involving sums up to Rupees 10 before Moonsifs, and up to Rupees 50 before Zillah Judges from the judgments of Moonsifs, were determinable without appeal. In 1861 a very important reform was introduced, a regulation being passed which virtually adopted the British Civil Procedure Code. The present Sudder Court was at the same time constituted under that title, the name of Appeal Court being discarded. Regulation I of 1863 was passed for the punishment of offences against the telegraph. Regulation II of the same year created copyright in books. Breaches of contract by artizans and workmen were made punishable by Regulation I of 1864. In 1864 another regulation was passed, defining the status of Vakeels, their discipline and rights in relation to the courts. A statute of limitation was also passed in the same year. By Regulation I of 1865, single judges of Zillah Courts were empowered to try and determine both criminal and civil cases. In the same year a regulation raised the jurisdiction of Moonsifs to suits of Rupees 200 value. Regulation III of 1865 legalized admission of approvers in criminal cases. Regulation I of 1866 introduced an amended system of registration of assurances based upon that obtaining in British India, but did not come into force till 1867. The use of stamped cadjans and the then existing agency of registration ceased from the date last named. Regulation I of 1867 legalized the employment of Vakeels in criminal cases. Regulation I of 1871 provided for the better conduct of business in the Sudder Court by giving a casting vote to the Chief Judge in certain cases. Another regulation was passed in the same year to relieve the Diwan of magisterial functions and appellate jurisdiction in criminal cases, and for redistribution of

magisterial powers generally. In 1873 a Zillah Court was established at Alwye presided over by a single judge. Regulation II of 1876 vested in all superior magistrates and in sub-magistrates to be selected by the Government co-ordinate jurisdiction with the Zillah Courts to try cases of criminal breaches of contract. This was followed by another enactment in the same year, which amended the rules then obtaining for the registration of deeds. Regulation I of 1877 empowered sub-officers of a district to dispose of police cases during the Tahsildar's tours. Another regulation of the same year revised the scale of court fees on vakaulats, petitions and certain other documents presented in courts. Regulation II of 1878 remodelled the constitution of and provided for the conduct of business in the Sudder Court. Regulations II and III of 1880 adopted 'mutatis mutandis' the Indian Penal Code with the Whipping Act and the Indian Criminal Procedure Code as the law of the land. Regulation IV of 1880 reformed the police force and defined its powers, duties and responsibilities. Regulation I of 1881, entitled the Travancore civil courts' regulation, raised the pecuniary jurisdiction of the Moonsifs from 200 to 500 rupees and vested them with small cause jurisdiction in cases of personal property of the value of 20 rupees and under. The decisions of the Zillah Courts passed in appeal suits for money or other personal property not exceeding 50 rupees were declared final. By Regulation II of the same year, the number of Judges in the High Court (Sudder) was raised from three to five and the powers of single judges and division benches, consisting of two judges, were defined. A court of appeal of ultimate resort to try appeals preferred to His Highness the Maharajah was also provided. The present judicial machinery is thus the outcome of the legislation of half a century. It may be summarized as follows. *Criminal Jurisdiction.*—The criminal courts of the first instance are those of sub-magistrates. There are 52 of such courts distributed over the country. They include the courts of the tahsildars who are ex-officio magistrates. Till very lately, their remuneration was wholly inadequate to the nature of the work demanded of them, their salaries being 70 rupees and under. But they have been now graded into three classes with salaries of 150, 125 and 100 rupees respectively. There are also a few sub-magistrates who are in charge of towns and divisions of talooks. Many of the talook and divisional sub-magistrates are men who have passed special tests and they are invested generally with third-class powers under the Procedure Code, some, with reference to their qualifications, being empowered to exercise second-class powers. Above these subordinate magistrates are magistrates in charge of divisions who exercise nearly all the powers of district magistrates. There are six such magistrates, four in charge of divisions who occupy the position of Collector and Magistrate in the Madras Presidency, one who is both Superintendent and Magistrate of the Cardamom Hills, and the other the Commercial Agent and Magistrate stationed at Alleppey. The officer at the head of the Salt department and two assistant magistrates are invested with first-class powers. Over the magistracy are five sessions judges who hear and dispose of cases committed to them and hear appeals from the decisions of district and first-class magistrates. Then comes the High Court which is the highest court of criminal appeal in the country. Their decisions in all cases coming before them are final, except awards of life-imprisonment and death which are subject to the confirmation of His Highness the Maharajah. *Civil Jurisdiction.*—First there are 18 talook or District Moonsifs who are courts of first instance, there being no courts in Travancore corresponding to the village judicatories in the Madras Presidency. The Moonsifs' jurisdiction prior to 1881, extended to suits up to 200 rupees only, but under the re-arrangement of the judicial machinery carried out in that year, their jurisdiction was raised to 500 rupees. They also exercise small cause jurisdiction in suits relating to personal property up to 20 rupees following the small cause procedure. Then come the zillah courts, of which there are five. They have original jurisdiction in suits above 500 rupees, their decisions in appeals up to 50 rupees being final. The Sudder or the High Court as it is now called have no original jurisdiction, but receive regular appeals from the zillah courts, and special appeals from decisions of Moonsifs where points of law are involved. The Maharajah is the highest appellate authority in the State, but before 1881, there was no special machinery, which could hear and dispose of appeals to the sovereign from the decisions of the Sudder. In that year a regulation was passed raising the number of judges from three to five, requiring all appeals, whether civil or criminal, from the lower courts to be heard and disposed of by a bench of two judges instead of by a single judge as before and constituting in certain cases, the other three judges a judicial committee for deciding appeals referred to them by the sovereign.

4. *Revenue Regulations.*—Of revenue regulations not many have been passed. In 1859, 1860 and 1882 regulations were made for the levy of port dues at the port of Alleppey. Regulation II of 1864 provided for the adjudication of claims to waste lands, and rules for the sale of waste lands with special reference to the cultivation of coffee in the hill tracts of the State. In 1866 a royal proclamation was issued defining the rights and relations between jenmies or landlords and their tenants.

5. *The Bar.*—There are Vakeels attached to courts of all grades, Moonsifs, Zillah Courts, and the High Court. Local examinations are held, and such candidates only as pass are allowed to practise in the courts, those passing high being selected for the Sudder, and those passing lower being permitted to plead in the Zillah and Moonsifs' Courts. Eight Barristers of the High Court of Madras are also enrolled Pleaders of the Travancore High Court. Several of the other pleaders have passed the British legal tests. The nominal roll of the High Bar consists of 113 pleaders, and that of the Zillah Courts of 197 pleaders. Attached to the High Court and to each of the Zillah Courts is a Circar Vakeel, who discharges the duties of a public prosecutor in criminal cases and those of a Government Vakeel in civil suits where the Government is interested.

6. *Police.*—Till very lately there was no distinct organised police in Travancore such as that existing in British India. The executive duties of the police were generally combined with the administrative and judicial functions of the collector of revenue and magistrate in the same set of officers. The peshcar was both Collector and Magistrate and Superintendent of Police in his own division. The tahsildars were ex-officio heads of police, collectors of revenue and sub-magistrates. Besides these there were 31 sub-divisional magistrates and police ameens. To aid the magistrates and sub-magistrates in the prevention and detection of crime, there was a certain staff of police men. The combination of police and magisterial work in one and the same set of officers was open to serious objections, and steps were accordingly taken to separate these two functions; in 1880 the whole force was completely re-organised and put under a competent officer as superintendent. At the head of each talook is an inspector whose head-quarters is the same as the talook sub-magistrates'. Each division is supervised by an assistant superintendent. At the head-quarters at the capital is a police school for teaching the men belonging to the force. The police force in 1882 consisted of 1,607 men besides a superintendent and three assistants and its cost to Government was Rupees 1,63,289. There is one policeman to every 4·8 square miles of the country and to every 1,724 of the population.

7. *Jails.*—There are four jails in the State, are all under the general control of the Diwan. The Central Jail and another supplementary to it are at the capital; there is one at Quilon and another at Alleppey. The Durbar Physician, as Principal of the Medical Department, has chief medical charge, one or two subordinates having immediate charge of the hospitals attached to each jail. The charge of the jails themselves is vested in superintendents or jailors. No valuation has been attempted of the work done by the convicts as a body; a large number of them are employed in the making and repairing of roads at the capital and at Quilon. Others are told off in small parties, from day to day, for garden-work in the palaces, hospitals, Circar buildings, and public gardens. Parties are told off to cart their own daily provisions, to cook their own meals, to wash their own clothes, to shave, to draw water for cooking and cleaning the jails and urinal, to make their own fetters, and to remove poudrette. Intramural labor was recently introduced on an organised basis and parties of men are now employed in weaving cloths, carpets and coir-making, in carpentry and tinker's work and in printing. A few are employed in ivory carving. By the custom of the country, Brahmins and females of all classes are exempt from hard labor; they are from the same cause free from capital punishment.

8. *Registration of Assurances.*—The old system of Registration of Assurances, which was superseded in 1866 by the regulation now in force, provided a regular agency of village notaries, who derived their appointments from, and acted under, the orders of the Sudder Court. Their number was unlimited. They were remunerated, not by salaries, but by fees levied upon the instruments which they registered, and which had to be drawn up by themselves and to be transcribed for registry. The stamped cadjans were supplied to them through the Moonsif Courts, and were sold at certain fixed rates, the proceeds being credited to the State. The Village Registrars (or Oorkanakkan) had power to make summary inquiries into objections against the execution of the deeds, and to refuse registration in case they were deemed valid. They were also prohibited from registering whenever they found that the Circar had liens on the property, such as for arrears of revenue, or had them already under attachment, or that they were Service or Personal Inam tenures. The revenues under the system did not average more than Rupees 1,200, as unstamped documents were not invalid but were only subjected to a penalty of 3 per cent. on value when produced before a

court. This unpaid agency did not work either to the profit of the State or to the satisfaction of the public, and the latter were subjected to much annoyance, delay, and extortion. A reform was effected by new legislation, which brought into existence the present system. Under this the Registrars are paid servants of the State, divided into four classes with reference to the quantity of work of the various districts. As a rule, there is a Registrar to each revenue talook, and none is appointed who has not passed a public examination in the law and rules of registration. Above the District Registrars are Inspectors, who are three in number, and whose duty it is to inspect every Registry office within their ranges once in two months at least, examine the state of the registers, and report the result in their fortnightly diaries. The work of these District Registrars is checked and controlled by a Central Office, at the head of which is the Huzoor Registrar.

9. *Tenures of Land.*—The broad distinctions in the tenures of land in Travancore are Jenm, Madambimaur and Circar.

10. *Jenm Lands.*—The Jenm lands may be subdivided into Devasom, or those held by pagodas, and Brahmasom, or those held by Brahmins. The normal condition of the Jenm tenure is absolute freedom from tax of any kind, and the tenure dates from that remote period of antiquity when, according to tradition, the "Kerala" country was reclaimed from the sea and parcelled out by Parashoorama among a colony of Brahmins. The colony still remains, and is known as that of the sixty-four village communities. The tenure ceases the moment it passes into alien hands for a money consideration, whatever the nature of the transaction. The mere letting out of lands however for annual rent to a tenant does not vitiate the tenure. The moment an alienation or khanam takes place, the land becomes liable to a light tax called rajabhogam, amounting in the case of gardens to one-sixth or one-eighth of the full rental (Vempauttom or Kandapauttom); in the case of paddy lands the tax amounts to nearly the same proportion of the full grain-rent, that is, half, three-tenths, or one-tenth of the quantity of seed required to sow the land, the full grain-rent being represented by an average of three times the quantity of seed. If the Kandapauttom of the alienated garden was fanams 100, the rajabhogam or kaurom or tax would be nearly $16\frac{1}{2}$ or $12\frac{1}{4}$ fanams; in the case of paddy lands, if the land was one parrah kandum, that is, a block of land which would require one parrah of seed, the full grain-rent would be 3 parrahs. The light tax chargeable would be only $\frac{1}{2}$, $\frac{1}{10}$, $\frac{3}{10}$ of one parrah. Even if the mortgage is afterwards redeemed by the Jenmy, the light tax continues on the land for ever and at the same rate. The only variation is for worse; for if the mortgagee dies heirless, the Circar seizes the tenure, transfers the land to the head Circar, and pays to the Jenmy or landlord the residue of rent or mitchavaram if any was paid to him by the deceased. Again, if the land is abandoned (Nirthul) by the kaunom holder on account of its becoming unfit for cultivation, from various causes, it is at once transferred to Circar and granted as a new Circar pauttom tenure if it is ever reclaimed. A Jenmy, as a rule, never alienates absolutely (Attipair) except to other Jenmies, Brahmins or Devasoms (pagodas).

11. *Madambimaur Lands.*—The Madambimaurs are, in common parlance, also called Jenmies, though strictly speaking they are not so, because their lands are subject to the rajabhogam, whether in their own hands or alienated to others. They are generally Nayars, or others not Brahmins. These also seldom alienate by absolute sale; if they do, the tenure is extinguished as with Jenm lands, the land is transferred to Circar, the purchase money, less a fine of 25 per cent., is given credit for, and interest is allowed on the 75 per cent. only, the remainder of interest being added to the existing rajabhogam kaurom, which will still be much short of full pauttom or rent of the land. At every alienation, however, this fine of 25 per cent. is levied, till sometimes the purchased money entirely disappears, and interest, added to rajabhogam which continues unabated, may absorb all the rental and even exceed it.

12. *Circar Lands.*—All other lands are known as Circar that is liable to full assessment or pauttom, whether actually paying it at the full or reduced rates or not paying it at all, as when given away as Inams. The Circar, in fact, takes in respect of these lands the place of the Jenmy or landlord. These may be broadly sub-divided into six classes—(1), Cundookrishipauttom; (2), Coottagapauttom; (3), Vempauttom; (4), Otty; (5), Anoobhogam, &c., or personal Inams; and (6), Oolliam or service. It is not easy to state precisely how the proprietary right in such lands came to be vested in the Circar or the governing power, the primeval tenure of all lands on the coast being pure Jenm according to accepted tradition. Probably, when the Rajahs were called in by election by the Numboory landlords, as they did once in twelve years for the purpose of Government, some lands were granted to them. Accretion of escheated lands, unoccupied lands reclaimed in the course of years, annexed home farms of subjugated chiefs, and lands purchased for money from the Dutch, have also contributed to increase the roll of Circar lands. The Cundookrishy lands are literally the "home farms" of the sovereign. The lands are theoretically speaking cultivated by the sovereign himself. Seed and hire for cultivation, the latter being given in kind, used to be advanced to the actual tenants and recovered with interest out of the harvest, of which they get for their share generally a little more than half of the gross produce. Of late years this system has been discontinued, the grain-rent alone being recovered from the cultivators in kind. The tenants are really tenants at will. They cannot sell even the occupancy right, nor can they transfer it without the previous consent of the Circar. As a matter of fact, however, the Circar never interferes with their occupancy. The grain-rent is collected in kind, is stored in various granaries, and is spent according to the requirements of the large feeding-house at the capital. If there is any surplus, it is sold, and the proceeds credited to the general exchequer. (2) The few lands which now remain under the head of Coottagapauttom are the purchases from Dutch (at Paliport), from the Jenmy of Pooliyendoorty, and the jungle lands called Coodicauval forming the frontier defences towards Cape Comorin. The bulk of such tenures have been sold in past years and converted into vempauttom. The above are rented out to the highest bidder, who levies full rent and makes some profit himself. This system of farming out for short periods, which leads to oppression of the tenants, of now discouraged. (3) The vempauttom lands are lands liable to and paying full tax or assessment. In the case of gardens a general deduction of 25 per cent. is allowed as compensation to the owner for the cost and labor of growing the gardens. In the case of paddy lands 20 or 30 per cent. is allowed as a permanent deduction for adverse seasons, blights, and floods of ordinary kind. When an extraordinary drought or flood occurs, remissions on a larger scale are allowed as a matter of grace. In the case of lands lying on the borders of backwaters or rivers the assessment is remitted on fallows of alternate years once in three years or once in four years. These fallows having been determined originally on the oath of the ryots, the remission is called Satyakoravoo. In the Nunjenaud, where there is river irrigation which is sometimes deficient, remissions are allowed for blighted or withered crop, though never for waste lands. Where the water-supply is dependent on the falling rains and on rivers, both waste lands and withered crop are allowed for. A deduction is also allowed when dry crops are cultured on paddy lands. The lands falling under this head were formerly unalienable by the occupant ryots, the proprietary right being theoretically vested in the State. In 1401 rights of full property were conferred on them without payment, but subject to a fine or fee of 2 per cent. on the money consideration indicated in the conveyances. This fee yields an annual sum of Rupees 30,000, representing a value of transaction in this description of land (before unsaleable and unmarketable) of Rupees 15,00,000. (4) Otty, or as it is commonly called Pandaur Otty, denotes a mortgage the parties to the transaction being the Circar on one side as mortgagor and the ryot holding the land on the other as mortgagee, the consideration being either actual cash borrowed by the State or something equivalent. It is, in fact, in no respect legally different from a simple mortgage dealing, or kaunom, between a jenmy who borrows and a tenant who lends the money. One kind of consideration is actually money borrowed from the ryot to meet State necessities. Another kind is an acknowledgment of money invested in forming a garden, repairing tanks, making improvements or reclaiming lands, from all of which either new revenues have been added or old revenues revived and secured. A third kind consists of State debt which came with the various petty kingdoms and principalities from time to time subdued and annexed to Travancore. A fourth kind consists of similar debts coming with escheats. Interest is allowed on these loans at rates rising from 5 to 12 per cent. per annum according to the circumstances and times when the obligations were contracted. These transactions are in many cases several centuries old. The interest is made payable by a deduction from the tax or pauttom on particular lands. Whatever remains after deducting the interest and adding rajabhogam on the full pauttom becomes the next tax payable on otty lands. These lands are alienable at will, but at every alienation both the principal and interest are reduced 25 per cent.; in other words, the Circar repudiates the obligation to that extent by refusing to pay the full original interest. When the number of hands thus changed amount to 16, the debt is extinguished and the land begins to pay full assessment. In some few places the fine is levied in cash in a lump, leaving the assessment on the lands as favorable as before. Economically and financially this plan is by far better, as the value of property remains the same to the ryot and the Circar is benefited by the lump receipt and is saved the constant correction of accounts. In Nunjenuad no such fines are levied on alienations of otty lands, unless the family of the survey holder becomes extinct. In some few cases near the capital no fines are levied under any

circumstances. (5) Anoobhogam lands are held on bonâ fide favorable or personal Inam tenures, and are liable to pay no assessment except the usual rajabhogam at ⅛ and ⅛. In some cases they are liable to quit-rents in addition. They may be mortgaged and redeemed without fines, but when absolutely sold the tenure is resumed and the land transferred to "otty" and dealt with under the rules applicable to that head. (6) Oolliam, or Vritty tenures constitute the Service Inams. They are held either for services actually performed at the present time, or for former services; in the latter case they are of the nature of Inams held for personal benefit. As a general rule, the former are inalienable, and the latter, when alienated, become liable to fines or ottivilakkam. But even in regard to the former a succession duty or adookoovathoo is levied on every change of incumbency calculated at 50 per cent. of a year's rental (pauttom) for gardens and 2½ fanams per parrah of paddy land. If the holder's family becomes extinct, the tenure is either transferred on payment of a high fine or premium (adiyara), or sold to the highest bidder at a public auction, when sometimes very high prices are realized. The bulk of these tenures are the Nayar Vritties, the holders of which are bound to supply at certain fixed prices vegetables and provisions for pagodas, for ootperas or charity feeding-houses, and for the royal birthday; they are also bound to raise sheds, to thatch and guard public buildings, and to do occasional peon's duties. They receive advances from the public funds and settle accounts subsequently on producing vouchers for the due delivery of the provisions, supplies, or work done. The Nayar Vritties are held free of all assessment or pauttom, but they are liable to the payment of the rajabhogam quit-rents at ⅛, &c., as already alluded to, plus a fee called "load-tax" (choomadoopanam), which is about 2 fanams payable on the whole Vritty. This is supposed to represent the commuted value of a load of vegetables, &c., which each Vritty holder was bound by the tenure to bring without payment. When Vritties have been found excessive in proportion to the service required, they have been charged with ½ pauttom and left with the holders. Where lands were insufficient, they have been supplemented by grants of money from the State treasury without interest. Where there were no lands previously, money grants were made on the same condition for service. When the service is not rendered for a time, the full pauttom on the lands is levied as a penalty if the holder refuses to render it, and the land itself becomes liable to be resumed and transferred to another. This, however, seldom happens. Where the money loans received from the State alone constitute the consideration for the service, it can be redeemed and enfranchised by the repayment of the original sum if the holder is inclined to relieve himself from the service. This measure was sanctioned recently. The Nayar Vritties consist of about 20,000 holders of 5,764 gardens and 220,000 parrahs of paddy land; the annual rental of the former being about Rupees 9,000 and that of the latter about Rupees 2,00,000. The State loans advanced for service amount to about Rupees 2,00,000, the interest on which is about Rupees 12,000 at 6 per cent. Thus, the total value of the tenures is about Rupees 2,21,000, and deducting from this quit-rent paid amounting to about Rupees 21,000, the net value may be given at Rupees 2,00,000. Other kinds of Service Inams are of a miscellaneous and local kind, such as those belonging to canoe services, elephant trapping, wrestlers, songsters, coppersmiths, potters, musicians, dancers, &c.

13. *Assumed Pagoda Lands.*—Of the Devasom Jenmy lands alluded to above, 378 pagodas were assumed and brought under the direct management of the Circar in the year 987, during the administration of Colonel J. Munro. They consisted of 62,000 gardens and 548,000 parrahs of paddy lands, the former yielding a rental of about Rupees 50,000, the latter Rupees 3,50,000, total Rupees 4,00,000. The annual expenditure out of this is only Rupees 2,50,000, leaving a surplus Rupees 1,50,000.

14. *Large Jenm Holdings.*—There are certain large Jenm holdings called Adikara Oyevoo and Desha Oyevoo, consisting of compact blocks of territory. The largest of these is the Edapully Rajah, a Numboory Brahmin of the highest rank. He was and still is in some respects an independent chief, and is entitled to all sources of revenue, whether actually levied by himself or administered by the State for him; compensation being settled and paid every year. He pays no tribute excepting a sum of Rupees 1,000 per annum, which is for police services rendered. He has, however, no police, civil or criminal authority within the principality. The annual revenue amounts to about Rupees 50,000. The Poonyart Rajah is another chief whose tenure is peculiar. Attingal consists of two Adikarams, and is the private property of the Ranees. The annual rental is probably below Rupees 20,000. Kilimanoor is the estate of the Coil Tumbooraums, who are generally allied by marriage to the Ranees and, consequently, to the reigning Sovereigns. There are other large holdings in which, besides exemption from tax of any kind, the proprietors have power to deal with their property without the interference of Government. The lands of the Sree Pudmanabha Sawmy temple extend over the whole of Southern Travancore, and are for purposes of account divided into three divisions, Madapaud, Neendakara Sanketham, and Colattoor melangaunom. The tenure, which is pure Jenm, dates from very remote antiquity. The annual rental of these lands is about Rupees 73,000, derived from 21,517 gardens and 92,960 parrahs of paddy lands, the former yielding Rupees 14,000, the latter Rupees 59,000. The funds belonging to this pagoda are separately collected and accounted for, but the State has a general control; any surplus is credited to the State, and deficits, when they occur, are made good by the State.

15. *Surveys and Assessment.*—The earliest survey or ayacut remembered by the oldest living accountant in Travancore is that of the year 1738, when Travancore was within its ancient limits. There were several surveys both anterior and subsequent. The surveys on which the present revenue arrangements are based are those of the year 1742; this was a very comprehensive one, and embraced nearly the whole of the lands, gardens and paddy-fields now belonging to the State. There has however been subsequent surveys. No idea is afforded by the ayacut accounts of the whole extent of paddy lands, but those which come under assessment consist of 3,181,620 parrahs of lands, or about 400,000 acres at 8 parrahs per acre, assessed with a net revenue, after making all deductions, of Rupees 8,08,958, or 2 rupees per acre. It is impossible to say that the ayacut rates of assessment on paddy lands have been fixed on a uniform plan or principle, but a very minute local appraisement by arbiters and Circar officers seems to have preceded the operation of classification. Each field expressed by the quantity of seed it took to sow was rated at so many parrahs of produce, and commonly expressed as double, treble, quadruple, &c. North of Trivandrum the average rate of rent was about double the seed. In the south it went up to beyond ten times, but the average was probably five times, and in recent years all excessive rates above ten were reduced to that level. The average gross produce in the north may be put at between 7 and 8 times, and that in the south at between 12 to 15 times the amount of seed. The Circar share is thus about a fourth in the one case and a third in the other.

16. *Extra Cesses.*—The above are the standard pauttom rates on the lands. There are however various extra cesses, about 200 in number, corresponding to the abwabs of North India, collected over and above the standard rates. They amount to Rupees 60,000, and are met with in all talooks.

17. *Mode of collecting Assessment.*—The taxes on gardens are collected in money with a few exceptions. The tax on paddy land is collected part in grain and part in money, according to the wants of the Circar with reference to neighbouring temples and charity feeding institutions. The proportion may be stated as a third in grain and two-thirds in money. All grain received in kind, but found in excess of Circar wants, is commuted into a money payment at varying rates. For gardens 10 equal kists are required and for paddy 4 kists for each crop; only two instalments however are allowed for the portion payable in money.

18. *Former Customs Duties.*—As in British India, there were inland and frontier and sea customs duties levied in Travancore up to the year 1836, when the inland transit duties were abolished, and the frontier and sea-board chowkies alone were retained. There were import as well as export duties on almost every article up to the year 1864, when, by a convention with the British Government, import duty, except on articles brought direct from countries other than British India and Cochin, was abolished. The Government undertook to compensate Travancore by an annual cash payment. The export duty was retained, but it was in no case to exceed 5 per cent., except in the case of timber, which was subject to a duty of 10 per cent. The articles of Circar monopoly, namely, salt, tobacco, and opium, were exempted from the convention. The pepper monopoly was abolished in 1860, and superseded first by an excise duty of Rupees 15 per candy levied in the talooks before the article left, and afterwards in 1868 by an export duty of 5 rupees per candy; this continues to the present day. The monopoly in the highest year has yielded a net revenue of Rupees 3,50,000 and in average years Rupees 1,50,000. Under the excise system is yielded a maximum of Rupees 77,000 and an average of Rupees 55,000; under the present arrangement the export duty gives Rupees 15,000 on an average. Tobacco, which was also a strict monopoly, was formerly imported by the Circar from British India and Ceylon and sold in the Circar's own bankshauls. This system was abolished in 1862 and superseded by an import duty, which has been successively reduced from Rupees 190 to Rupees 90 upon the best kind. Under the present arrangement merchants import tobacco on their own account, but by certain routes only, and not below a certain quantity; and they are required to bond it in Circar warehouses. In the time of the monopoly it yielded a maximum of Rupees

12,00,000 and an average of Rupees 10,00,000; under the excise arrangement it yields nearly Rupees 8,00,000. The quantity of tobacco consumed was more than 9,000 candies in 1881.

19. *Salt Monopoly.*—Salt was made a monopoly of the State in the last two months of the year 1812. In the following year 1813 the sale stood thus: home-made white salt 50,000 Indian maunds, black salt 81,000 Indian maunds, total 131,030 Indian maunds; foreign salt imported 153,000 Indian maunds; grand total 284,000 Indian maunds. The total revenue yielded to the Circar was Rupees 1,85,149. The price was Rupee 1-1-0 per maund for the best quality, lower prices being put on inferior salt. At the end of the year the selling price was reduced to Annas 11¾ per maund. The amount of revenue and the prices remained with little variations till the year 1858, when the price of foreign salt was raised to Rupee 1-1-0 and the revenue indicated a corresponding increase. In the year 1861 the selling price of home-made white salt was raised and made equal to that of foreign salt. But this increase in the selling rate was then made applicable only to the districts north of the Varkalay barrier. In the following year the increase was extended to all white salt sold throughout the country. The revenue continued to increase from year to year until 1864, when it reached Rupees 5,48,659. At the close of this year, by an arrangement with the British Government, the price was assimilated to that of British India; that is to say, from Rupee 1-1-0 it became Rupee 1-8-0 per maund. In all the subsequent revisions made by this Government the Circar has followed the example set. In 1865 the price was raised from Rupee 1-8-0 to 1-11-0, and in 1869 it was raised from Rupee 1-11-0 to Rupees 2. In 1881 there was a further rise of from Rupees 2 to Rupees 2 Annas 8. At the time when the price was first assimilated with the British rate, it became necessary to discontinue the production and sale of black salt; from its bad quality this could not be sold at the same price with the rest.

20. *Present Supply of Salt.*—The present supply is derived partly from the Circar pans in South Travancore, four in number, and partly from Bombay. Occasionally salt from Tinnevelly is imported. The actual prime cost of home-made salt is 1 anna and 10 pies per Indian maund, or Rupees 13¼ per garce. Imported Bombay salt costs the Circar Rupees 38 per garce when landed and delivered into the stores. Unlike the operations on the other coast, there are in Travancore two seasons of manufacture, one between September and November and the other between January and June. Till lately it was not the practice to take over salt from the ryots as soon as manufactured, but it was buried in pits or was allowed to remain exposed on the banks of the salt works. It was received into store only when it was required for sale and then only was payment of the ryots' share made. But under recent arrangements salt is received into store as soon as it is ready and paid for promptly.

21. *Abkarry.*—The revenue from Abkarry is managed much as it is in British India; that is to say, the monopoly of selling toddy and country liquor is farmed out, talook by talook, to the highest bidder. The contractors are forbidden from selling below certain rates; the Tahsildars recover the rent from the contractors in ten equal monthly instalments, the last two months of the year being left out. If the contractor chooses to register sub-contracts or sub-leases before the Tahsildar, this officer is authorized to help the contractor in enforcing recovery of his dues by summary process. Fifty-seven years ago the revenue from this source was Rupees 41,124, and continued fluctuating between that sum and Rupees 59,448 up to the end of the year 1857. Since then it has risen rapidly, and at the time farms were put up to auction in 1881 the annual rent rose from 2 lakhs to nearly 3,20,000 rupees.

22. *Opium.*—The opium monopoly includes also that in ganja, which is cultivated in the southern extremity of the State. Opium was made a source of revenue for the first time in 1861; it then yielded Rupees 14,774, but fell off in subsequent years owing to losses sustained by the contractors. It is again reviving at present, the rental for the two years 1881 and 1882 having been 17,059 rupees. Opium is consumed chiefly by the Moplahs, north of Quilon, and especially in Minauchel, a hilly talook, where the drug is resorted to as a preventive of malarious fever. A single contractor usually holds the farm of this monopoly for the whole State.

23. *Forest.*—The whole range of forests in the country is under the charge of the Conservator, excepting the Cardamom Hills, mostly included in the Totoopooya talook, and a small tract in South Travancore, both of which are separately administered. The forest tract in South Travancore was under the control of the Revenue Department. Timber is felled here at Government cost, and periodically sold by public auction at a depôt established in the Tovaula talook under the superintendence of an officer called Aminadar. Besides the general conservancy of the forests, the Conservator is charged with the duty of supervising the trapping of elephants, the collection of revenue from miscellaneous forest produce, the supplying of timber for Government requirements, and other items. The most valuable timber trees produced in the forests are teak, blackwood and ebony, in respect of which the Government has a monopoly. No permits are granted to private individuals for felling them. Timber of other kinds is allowed to be cut by private parties on payment of a fee, or koottikánom, at certain fixed rates. As a means of check, watch stations are provided at various places, and timber felled under permits is subject to inspection at these stations in the course of transit.

24. *Cardamoms.*—One item of miscellaneous forest produce is cardamom. In the forests under the Conservator this spice is not regularly cultivated, but grows wild. Of late, however, it would seem that attention has been directed towards bringing it under regular cultivation as in the Cardamom Hills. Cardamom gardens to the extent of some hundred acres have been marked out. The Cardamom Hills were under the supervision of the Conservator of Forests till the year 1868, when they were transferred to a special Superintendent. The undivided attention which the change has secured for the industry has produced increased efficiency in the working of the department.

25. *Devasom.*—The revenue of the lands belonging to the Sree PudmanabhaSawmy pagoda, which have been acquired from remote times by gift, amount to Rupees 75,000 and go to defray the daily expenses of the institution; surpluses are credited to the State treasury and deficits, which rarely occur, are made good from it. This temple is more or less independent of Government management. The State had no concern with the management of any temples before the year 1811, when the landed property of 378 temples was assumed and the management taken over. Other minor temples, 1,171 in number, which had no property, were also assumed either before or at that date. The expenditure, establishments and rules for management, were settled on this occasion on a permanent basis. The lands thus assumed now yield a revenue of Rupees 4,30,000, while the annual expenditure on the 378 pagodas concerned with them amount to about Rupees 3,92,000. The annual grants for the other 1,171 temples amount to about Rupees 28,000. The interest of Government in respect of these institutions is for the most part that of a trustee, and as a church establishment they cannot be regarded as expensive.

26. *Ootperas.*—The ootperas or charitable feeding institutions are 45 in number, inclusive of 3 conjee-houses. The chief is at the capital, and is known as the agrashaula. The others are distributed at convenient stages on the line of road commencing from the Aramboly Pass in the south and ending at Paravoor in the north. The former is intended to feed all comers, the latter to feed travellers only; Brahmins are the chief recipients of the charity. Of the conjee-houses one is at Tovaula close to the Aramboly Pass, where all classes and castes of travellers are fed; one is at Shencottah a little way beyond the Ariyancauvoo Pass, where also all classes are served; the third is at the capital, which is confined to the very poorest of all classes and creeds, and chiefly to the dumb, the lame, the sick and the blind. The ootperas are primarily intended for the relief of the poor and way-worn traveller, but it cannot be denied that they have come in some cases to be regarded as feeding-houses for the poor of a resident population. It may be remarked that 75 per cent. of the people fed at these charitable institutions come from the southern provinces of the Madras Presidency, and from Malabar, and form a kind of migratory population. The reduction of expenditure on ootperas has been kept in view of late years.

27. *Vernacular Schools.*—The system of State vernacular education embraces—(1) Praverty or Village Schools, (2) District Schools, and (3) Aided Schools receiving grants. The department was organized in the year 1866. The course of instruction in the village schools consists of reading, writing, both on paper and cadjan; arithmetic; geography, both general and of Travancore; dictation and lessons on health. The course of instruction in the district schools is the same, but the standard is higher, and Indian History is also taught. Sanscrit is taught in three and Tamil in all of the talook schools in South Travancore. At the central vernacular school at Trivandrum the standard embraces the first book of Euclid, Algebra (to simple equations), and the History of India and Travancore. In the girls' schools the subjects are the same as in the talook schools, with the addition of some vocal music. Some of the teachers are females. The class books used in all the vernacular schools have been translated or compiled by a committee who were brought into existence simultaneously with the system of State vernacular education. Uniform fee is collected in all schools, namely, 2 annas, except girls' schools where no fee is levied. The first masters of Praverty schools are paid Rupees 8 and 7 per mensem and the under-masters each Rupees 5. But the pay is reduced when the fees realized fall short of 25 fanams, or the attendance falls short of 25 boys. Formerly, when this was not attained, pay used to be refused altogether. In a recent year this rule was relaxed, and the masters were paid in proportion to the

fees realized. The buildings and furniture are provided by the villagers themselves. Maps alone are at present supplied by the Government. In some schools the boys sit on the ground. The salaries of talook schoolmasters range thus: first master from Rupees 20 to 12, second master, Rupees 15 to 12, according as the school is first or second class; third master, Rupees 10; monitors, Rupees 5. The aided schools receive a grant which ranges from Rupees 120 to 50 per annum according to the strength and standard attained in the schools, and on condition of their teaching the same subjects as are taught in the Government schools and of undergoing periodical inspections. There is nothing to prevent other subjects being taught. The village schools are inspected at least twice in a month by Deputy Inspectors, whose salaries vary from Rupees 50 to Rupees 25. There were 30 of them in 1883. The mission aided schools are inspected by two Head Inspectors whose salary is Rupees 100, inclusive of a travelling allowance of Rupees 25. The aided schools in the town of Trivandrum are visited every month and supervised by a special Inspector on a salary of Rupees 50 per mensem. The whole department is controlled by a Director, whose salary is Rupees 150.

Besides these Government schools there is a very large number of indigenous schools scattered over the country. Arrangements have been recently made for a systematic inspection of these and for gradually bringing them into the educational system of the State. Trained teachers being a great desideratum, a normal school has just been opened at the capital.

28. *Vernacular Schools belonging to Missionary Societies.*—The educational operations of the various Missionary Societies have always been a very active widely influential agency in the education of the youth of the country, especially of the lower classes. The results of their labours may be summarized thus in a recent year (1882):—

Societies.	School.	Boys.	Girls.
Protestant London Mission	212	8,321	2,375
Church Mission	122	2,925	1,090
Catholic do. ... ... About.	500	5,346	2,500
Vicariate Apostolic of Quilon ...About.	70	2,780	695
Vicariate Apostolic of {Travancore only Cochin.} About.	29	678	215

Of these, the number of schools receiving grants-in-aid from Government and the amount of grant disbursed to them are shown in the following statement:—

Societies.	No. of school.	Pupils.			Amount disbursed for 1882.	
		Boys.	Girls.	Total.	RS.	CH.
London Mission ...	149	6,364	1,563	7,927	7,617	12
Church do. ...	64	2,355	945	3,300	2,982	14
Catholic do. ...	4	253	51	304	198	0
Syrian do. ...	178	6,177	1,139	7,316	7,539	12

Out of 409 schools that received grants from Government in 1882, so many as 395 belong to Missionary agencies. The total grant disbursed to them was over 18,000 rupees out of 18,942 given by way of grants-in-aid for schools.

29. *Medical Department.*—The total annual cost of the medical establishment was in 1881 Rupees 96,838. The medical institutions maintained at the capital are the Civil or General Hospital, the Charity Hospital to which is attached a Small-pox Hospital, the Lunatic Asylum, the Lying-in Hospital, and the Jail Hospital. There are subordinate dispensaries attached to the palaces of the Maharajah and to Elliah Rajah. The medical institutions at outstations consist of three at Alleppey, namely, a Civil Hospital, Charity Hospital, and Jail Hospital, and 18 at other places. The medicines and medical stores cost on an average Rupees 30,000 per annum.

30. *Revenue Survey.*—The Revenue Survey Department, which was organized in the year 1864, was attached to the Diwan's Cutcherry and was directly under his orders. The survey operations were mostly in connection with coffee estates; but this small establishment has now merged in the Revenue Survey and Settlement office recently organized for the purpose of carrying out a detailed measurement and registration and assessment of lands as the basis of a sound administration of the land revenue.

31. *Press.*—The Circar Press was organized about forty years back, at the time when the Trivandrum English school came into existence. The scope of its operations was exceedingly limited for a long time, the demand for printing work being confined to the publication of the Trivandrum Almanac and the requirements of the English school and one or two more departments. Recently the department has undergone considerable improvement in strength and efficiency. The stock of printing machinery and types received valuable additions during the years 1864 to 1868. In 1869 a Lithographic Press was supplied with an establishment to work it. At the present time almost every department derives help from the Press, and the Government Gazette which contains all important circulars and is supplemented by an agricultural and a police sheet is largely circulated. Selections from important public records also find a place in this official publication.

32. *Anjel or Local Post.*—The Anjel, in former days, was maintained for State service only, but about 1860 it was thrown open to the public and the system of levying postage introduced. In 1860 there were 44 stations or Post Offices, and 43 more have been added in subsequent years, making a total of 87 at the present day. The total cost amounted to 39,744 rupees in 1881, or deducting Rupees 19,052, the receipts from private covers, the net expenditure to Government was Rupees 20,045. The distance traversed by runners every day is 620 miles. From the Central Post Office at Trivandrum one line runs south to Tovaula, another runs north as far as Pauvoor, another to Shencottah by the new road viâ Nedoovengaud. A branch line runs from Quilon to Shencottah, and another from Krishnapooram to Todoovella; nineteen other branch lines start from the main ones and proceed into the interior and towards the coast. The average speed attained is between 4 and 5 miles per hour. The total number of private despatches in the year 1882 was 351,303. The income yielded from this source was Rupees 19,052. Owing to the substitution of paper for palm leaves, on which latter most of the correspondence of the country used to be carried on, the additional number of covers did not yield a corresponding increase in the receipts, the weight of the letters being considerably reduced. The Anjel carries also the letters, newspapers and books received into the country through the British Post Offices, of which there are about eight. By the extra charge levied on these it earned in 1882 Rupees 647.

33. *Mint.*—With the exception of two stamping-presses, an assaying furnace, and assay balances and weights, procured from the Madras Mint and from England, there is no machinery in the Travancore Mint, and the operations are carried on in the native style. For some years past the operations have been very limited. At present work is confined for the most part to copper coinage. The British rupee is current in the State. The local coins are, therefore, only of lower denominations. A fanam is equal to 4 chuckrams (silver coin), and a chuckram is equal to 16 cash (copper coin). 28½ chuckrams go to the rupee, a chuckram being nearly 6 grains Troy. The copper coinage yielded Rupees 2,314 in 1882, deducting cost of metal.

34. *Elephant Department.*—Elephants are taken in pits, partly by Government agency and partly by private individuals. In the latter case, the captor receives a reward from the Government of Rupees 150, the animal itself being royal. There are in all about 500 Circar pits and 500 private pits. Each pit is 8 feet square, rounded off towards the bottom. They are scattered over the valleys frequented by the animal. When an elephant falls into a pit, a report is sent to the Ameendar of the range, who reports to the talook, and a party with tame elephants is then immediately despatched to capture it. After capture the animal is taken to certain large stables or enclosures and there let loose. It then becomes the business of the mahout to tame it. When young, a few months suffice for taming; when old, it takes longer. A full grown elephant at work costs about Rupees 51 per mensem, inclusive of the mahout's salary. When out of work and left to graze in the forest Rupees 7 per mensem are allowed. The pit system is falling into desuetude, being superseded by the kheddah.

35. *Financial.*—The gross receipts from all sources indicated in the Financial Returns for five recent years are given below:—

	—	1878.	1879.	1880.	1881.	1882.
		RS.	RS.	RS.	RS.	RS.
1	Land Revenue	17,10,038	17,35,454	16,55,257	16,05,783	17,59,686
2	Miscellaneous Revenue			4,48,896	5,05,013	4,12,999
3	Registration	6,58,746	7,28,751	1,22,431	1,07,164	1,08,451
4	Post Office			20,974	20,166	19,849
5	Judicial fees, &c.	2,79,390	3,06,274	3,11,949	2,98,134	3,09,663
6	Customs	4,00,328	4,31,835	4,31,937	3,96,463	4,10,714
7	Abkarry and Opium	1,81,827	2,05,698	2,00,714	2,04,121	2,83,210
8	Tobacco	8,17,325	8,63,830	7,95,211	7,46,930	7,78,243
9	Salt	15,32,845	14,87,475	14,95,620	14,01,337	13,23,785
10	Cardamom and other goods	3,51,530	5,16,523	3,69,067	2,55,335	1,39,319
11	Timber	91,883	86,936	1,09,775	1,96,893	2,38,107
12	Interest on Government Securities	1,55,582	95,597	2,12,887	1,59,000	1,69,692
13	Arrears of Revenue collected	57,626	50,148	29,123	28,624	68,826
	Total ..	62,37,120	65,09,521	62,03,841	59,24,963	60,22,544

The disbursements for the same period were as follow :—

	—	1878.	1879.	1880.	1881.	1882.
		RS.	RS.	RS.	RS.	RS.
1	Devasom	5,75,775	5,72,940	5,74,521	5,74,998	5,78,931
2	Ootperas	3,35,417	3,22,510	3,26,518	3,31,151	3,18,342
3	Palace	4,67,263	6,70,523	5,48,535	5,43,720	6,10,537
4	Huzoor Cutcherry and other Civil Establishments	6,49,980	6,53,229	5,98,934	5,85,244	6,74,505
5	Registration	..	..	53,890	48,341	49,427
6	Post Office	..	..	30,221	39,162	40,876
7	Judicial Establishments	1,90,503	1,66,540	1,72,543	1,77,507	1,95,277
8	Police Establishment	1,57,428	1,61,714	1,61,659	2,05,575	1,63,829
9	Jails	..	..	..	..	35,036
10	Conservancy	..	..	4,939	15,786	18,991
11	Stationery	..	..	..	..	44,428
12	Contingent charges	2,18,715	2,77,000	2,90,238	2,94,354	2,53,694
13	Nayar Troops	1,59,723	1,61,039	1,85,042	1,67,583	1,78,655
14	Elephant and Horse Establishment	73,103	69,173	95,238	1,26,518	99,776
15	Education, Science and Art	1,75,261	1,84,965	1,83,696	1,84,822	1,90,231
16	Medical	99,253	97,245	1,03,265	96,838	92,457
17	Pensions	1,45,070	1,58,962	1,75,186	1,85,068	1,91,844
18	Public Works	13,74,415	12,23,075	14,04,489	9,81,827	8,49,872
19	Costs and charges of goods sold, &c.	3,45,398	4,26,507	4,92,790	4,75,267	4,14,296
20	Subsidy to the British Indian Government	8,25,920	8,10,652	8,10,652	8,10,652	8,10,652
21	Pokoovaravoo Department	..	53,768	60,657	23,251	1,793
22	Revenue Survey and Settlement	..	..	..	..	10,291
23	His Highness the Maharajah's tours	59,664	..	..	1,67,614	57,636
24	Tiroomadamboo	..	17,960	..	..	18,131
25	Anniversary, &c., of the demise of members of Royal Family	..	..	63,803	..	20,620
26	Moorjapam	..	..	14,641	2,00,050	..
27	Census	..	..	26,218	..	..
	Total ..	59,52,888	60,27,802	63,77,675	62,35,328	59,20,127

APPENDIX No. XLVII.

NAMES OF ZEMINDARRY, &c., ESTATES IN THE MADRAS PRESIDENCY, WITH THE PESHCUSH PAID BY THEM TO GOVERNMENT.

ARCOT (NORTH) DISTRICT.

	RS.	A.	P.
Calastry (Kálahasti,* *Tel.*)	1,73,812	1	11
Carvetnugger (Kárvétinagaramu, *Tel.* Kárvetnagar *)	1,78,912	9	6
Poonganore (Punganúru, *Tel.* Punganúr *)	66,821	3	4
Cungoondy (Kangundi,* *Tel.*) ...	22,958	0	10
Arnee (Árani, *Tam.* Árni *)	5,078	6	11
Poolicherla (Pulicherla,* *Tel.*) ...	5,585	5	10
Bungaur (Bangáru,* *Tel.*)	11,643	8	8
Goodiputty (Gudipáti, *Tel.*)	2,852	15	1
Toombapolliem (Tumbapálaiyam, *Tel.*)...	1,783	4	4
Culloorpolliem (Kallúrupálaiyam, *Tel.*).	4,060	1	11
Naraganty (Náraganti, *Tel.* Naragunti.*)	6,540	3	1
Carcambaudypolliem (Karakkambádipálaiyam, *Tam.*)	......		
Krishnapoorampolliem (Krishnápuramupálaiyam, *Tel.*)	......		

ARCOT (SOUTH) DISTRICT.

	RS.	A.	P.
Vettavalam (*Tam.*)	70	0	0
Alaginuttam (Azhaginattam, *Tam.*).	2,103	6	3
Mandagaputt (Mandagappattu, *Tam.*).	2,434	1	2
Chinnammanaickenpolliem Nadooveeraputt (Shinnammanáyakkanbálaiyam Naduvírappattu, *Tam.*)	3,991	5	3

BELLARY DISTRICT.

Sundoor (Sondúru, *Tel.* Sandúr *) ... Sundoor is an independent state and pays no peshcush.

CHINGLEPUT DISTRICT.

Sydapett Talook.

	RS.	A.	P.
Mambalam (Mámbalam, *Tam*) ...	720	1	7
Pallavaram (Pallávaram,* *Tam.*) ...	530	8	7
Chembrambaukum (Shembarambákkam, *Tam.*)	(a)		
Shoranjery (Shóráñjéri, *Tam.*) (b) ...	2,461	11	3
Chokkanallore (Shokkanallúr, *Tam.*)...	358	12	1
Vauyalanallore (Váyalánallúr, *Tam.*).	1,511	10	2
Tiroomanam (Tirumanam, *Tam.*) ...	728	0	0
Shittoocaud (Shittukkádu, *Tam.*) ...	1,023	8	4
Corattore (Korattúr, *Tam.*)	323	14	6
Trimalrajapooram (Tirumalarásappuram, *Tam.*)	254	10	10
Palanjore (Pazhañjúr, *Tam.*)	(a)		
Motharambaid (Mótharambédu, *Tam.*)...	52	2	3
Tiroocolputt (Tirukkólppattu, *Tam.*) ...	82	9	0
Toocanamputt (Túkkanámbattu, *Tam.*).	65	3	0
Total ...	8,112	11	17

Ponnairy Talook.

	RS.	A.	P.
Ponnairy (Ponnéri,* *Tam.*)	262	11	10
Peroovayal (Peruváyal, *Tam.*) ...	1,655	0	2
Keelmathalambaid (Kízhmathalambédu, *Tam.*)	1,468	9	8
Yelimbaid (Élimbédu, *Tam.*)	1,065	0	2
Keerapaukam (Kírappákkam, *Tam.*) ..	404	3	0
Panambaukam (Pánambákkam, *Tam.*).	1,348	14	4
Amore (Ámúr, *Tam.*)	2,618	1	3
Tiroovaypaudy (Tiruváyppádi, *Tam.*).	63	8	0
Canacambaukam (Kanakkambákkam, *Tam.*)	398	9	9
Coloor (Kólúr, *Tam.*)	330	0	11
Coommangalam (Kummangalam, *Tam.*)	443	5	2
Codoor (Kodúr, *Tam.*)	267	8	4
Krishnapooram (Kiruttináppuram, *Tam.*)	70	15	9
Tatchoor (Taççúr, *Tam.*)	448	15	1
Tiroovencatapooram (Tiruvengadáppuram, *Tam.*)	174	9	0
Vembaukam (Venbákkam, *Tam.*) ...	275	5	11
Shivapooram (Shivappuram, *Tam.*) ...	350	7	0
Poolicoolam (Pulikkulam, *Tam.*) ...	294	7	6
Arivadoray (Arivatturai, *Tam.*) ...	107	2	5
Lakshmeepooram (Laççumíppuram, *Tam*).	190	14	10
Aharam (Agaram, *Tam.*)	100	1	4
Devaranjery (Tévaráñjéri, *Tam.*) ...	148	3	4
Chinnacauvanam (Shinnakkávanam, *Tam.*)	365	12	9
Colatore (Kolattúr, *Tam.*)	383	8	2
Ooppalam (Uppalam, *Tam.*)	532	2	22
Paricaputt (Parikkappattu, *Tam.*) ...	153	8	2
Covantaungal (Kóvandángal, *Tam.*) ...	40	1	0
Mathiravaid (Mathirávédu, *Tam.*) ...	109	15	10
Lingasamoodram (Lingasamuttiram, *Tam.*)	56	9	4
Aroovaukam (Aruvákkam, *Tam.*) ...	140	8	10
Madimey (Madime, *Tam.*)	223	14	4
Shittarasore (Shittarasúr, *Tam.*) ...	152	4	0
Tattarasore (Tattarasúr, *Tam.*) ...	75	14	5
Pullambaukam (Pallambákkam, *Tam.*).	50	11	8
Paudiyanalloor (Pádiyánallúr, *Tam.*) ...	557	12	8
Shembiyamanaly (Shembiyamanali, *Tam.*)	212	8	0
Giridharapooram (Kiritharappuram, *Tam.*)	185	13	9
Oracaud (Orakkádu, *Tam.*)	237	4	4
Nedoovarambaukam (Neduvarambákkam, *Tam.*)	276	10	5
Juggannadapooram (Shagannáthappuram, *Tam.*)	348	15	3
Alinjívaukam (Azhiñjivákkam, *Tam.*) ...	405	6	0
Shellapillaiyarcooppam (Shellappillaiyárkkuppam, *Tam.*)	79	12	9
Shennivaukam (Shennivákkam, *Tam.*)...	236	3	2
Poottaharam (Puttagaram, *Tam.*) ...	38	12	4
Irooliputt (Irulippattu, *Tam.*)	287	4	11
Caroongooly (Karunguzhi, *Tam.* Karunguli *)	157	8	1
Caunjivauyal (Káñjiváyal, *Tam.*) ...	220	14	9
Total ...	17,537	7	10

(a) Reduced to *nil* on account of compensation. (b) The estate is under the management of Court of Wards.

Trivellore Talook.

	RS.	A.	P.
Eivaily-Aharam (Aivéliyagaram, *Tam.*)	506	13	7
Siroovanore (Shiruvánúr, *Tam.*)	299	2	11
Kolundalore (Kozhundalúr, *Tam.*)	668	10	8
Mailaharam (Mélagaram)	195	1	0
Keivandore (Kaivandúr, *Tam.*)	387	12	4
Tripassore (Tiruppásúr, *Tam.*)	2,554	3	5
Autpaukam (Áttuppákkam, *Tam.*)	103	7	4
Mathancooppam (Máthanguppam, *Tam.*)	395	2	10
Shenjy (Sheñji, *Tam.*)	1,027	2	1
Panambaukam (Pánambákkam, *Tam.*)	275	7	10
Nungumbaukum (Nungambákkam, *Tam.*)	540	7	6
Yekatore (Égáttúr, *Tam.*)	2,837	3	3
Coonnatore (Kunnattúr, *Tam.*)	123	11	8
Caucalore (Kágalúr, *Tam.*)	986	12	8
Tiroovore (Tiruvúr,* *Tam.*)	7,784	5	11
Vengal (Vengal, *Tam.*)	1,693	10	10
Shembaid (Shembédu, *Tam.*)	903	14	0
Total ...	21,283	1	10

Conjeeveram Talook.

	RS.	A.	P.
Vullam (Vallam, *Tam.*)	1,140	3	8
Tandalam (Tandalam, *Tam.*)	397	5	0
Todoocaud (Todukkádu, *Tam.*)	231	6	0
Shandavellore (Shandavélúr, *Tam.*)	595	4	6
Cariyamungalam (Kariyamangalam, *Tam.*)	345	1	1
Shattiray (Shattirai, *Tam.*)	1,197	2	1
Ooloondey (Ulunde, *Tam.*)	523	12	5
Moothoocore (Muthukkúr, *Tam.*)	267	1	9
Periyantaungal (Periyandángal, *Tam.*)	70	10	9
Aharam (Agaram, *Tam.*)	565	15	5
Vayalore (Váyalúr, *Tam.*)	1,085	5	1
Bheemapooram (Pímáppuram, *Tam.*)	102	9	6
Tattanore (Tattanúr, *Tam.*)	118	6	2
Paulanallore (Pálanallúr, *Tam.*)	455	12	6
Shelayanore (Shelayanúr, *Tam.*)	159	10	0
Chittore (Shittúr, *Tam.*)	221	12	0
Keevalore (Kívalúr, *Tam.*)	8	13	4
Bheemantaungal (Pímandángal, *Tam.*)	152	15	9
Cauraneytaungal (Káranettángal, *Tam.*)	148	15	5
Nemmaily (Nemméli, *Tam.*)	848	1	1
Chowkantaungal (Shavukkandángal, *Tam.*)	24	12	4
Cauttaharam (Káttagaram, *Tam.*)	(*a*)		
Vallacottah (Vallakkóttai, *Tam.*)	1,112	14	4
Veipoor (Vaippúr, *Tam.*)	151	12	4
Yerayore (Erayúr, *Tam.*)	828	10	6
Cauraneyputt (Káraneppattu, *Tam.*)	60	5	2
Jamoonamputt (Yamunámbattu, *Tam.*)	271	10	2
Cotoor (Kóttúr, *Tam.*)	1,509	2	7
Connoor (Konnúr, *Tam.*)	414	0	10
Soomitrambaid (Shumittirambédu, *Tam.*) (*b*)	217	0	0
Total ...	13,226	7	9

Chingleput Talook.

	RS.	A.	P.
Neroombore (Nerumbúr, *Tam.*)	1,246	9	9
Paukum (Pákkam, *Tam.*)	95	13	6
Coonnavaukam (Kunnavákkam, *Tam*).	274	11	0
Attavattam (Attavattam, *Tam.*)	108	12	3
Tepanamputt (Téppanámbattu, *Tam.*).	88	3	10
Iroombilicherry (Irumbiliççéri, *Tam.*).	110	6	7
Ammanampaukam (Ammanambákkam, *Tam.*)	390	12	8
Pandore (Pándúr, *Tam.*)	1,024	7	7
Caroomaurapaukam (Karumárappákkam, *Tam.*)	100	9	4
Itchancauranay (Íççangáranai, *Tam.*).	157	4	5
Shooracooppam (Shúrakkuppam, *Tam.*)	22	8	6
Peroombaid (Perumbédu, *Tam.*)	492	1	10
Shooraudimungalam, Condacauricooppam (Shúrádimangalam, Kondakkárikkuppam, *Tam.*). Panancautoocherry (Panangáttuççéri, *Tam.*). Nadoovacaray (Naduvakkarai, *Tam.*) }	970	2	10
Aminjicaray (Amiñjikkarai, *Tam.*)	91	8	10
Periyacauttoopaukam, Carcautacacherry, Sholaycooppam (Periyagáttuppákkam, Karkkádagaççéri, Shólaikkuppam, *Tam.*)	259	5	5
Vittalaupooram, Perambaukum (Vittaláppuram, Pérambákkam, *Tam.*)	1,014	5	4
Coodiperambaukam (Kudippérambákkam, *Tam.*). Chitrambaukam (Shittirambákkam, *Tam.*). Yilayanarcooppam (Ilaiyanárkkuppam, *Tam.*) Shomausiputt (Shómásippattu, *Tam.*) Poonnaputt (Punnappattu, *Tam.*) Basavapooram (Pasaváppuram, *Tam.*) Chinnacauttoopaukam (Shinnakkáttuppákkam, *Tam.*). }	672	8	5
Mercaunday Oottangooly (Mérkkándai Úttanguzhi, *Tam.*)	191	2	11
Arambaukam (Árambákkam, *Tam.*)	2,236	12	4
Vasavasamoodram (Vasavasamuttiram, *Tam.*)	491	11	2
Vengapaukam (Vengappákkam, *Tam.*)	438	12	3
Vayalore (Váyalúr, *Tam.*)	575	10	7
Poondandalam (Púndandalam, *Tam.*)	110	10	8
Narasancooppam (Narasanguppam, *Tam.*)	98	12	4
Bommarajapooram (Pommarásappuram, *Tam.*)	409	8	1
Coonnatore (Kunnattúr, *Tam.*)	502	0	6
Total ...	12,175	4	11

Madrantacam Talook.

	RS.	A.	P.
Choonampett (Shúnámbattu, *Tam.* Chúnámpet*)	1,651	15	11
Sheyoor (Sheyyúr, *Tam.*)	1,636	12	10
Yendatore (Endattúr, *Tam.*)	1,598	14	10
Olavetty (Ozhavetti, *Tam.*)	639	8	1
Keelcauranay (Kízhakkáranai, *Tam.*).	395	14	11
Keeralvaudy (Kíralvádi, *Tam.*)	97	8	11
Shaulayore (Shálaiyúr, *Tam.*)	299	14	8
Cuttiwaukum (Kattivákkam, *Tam.*)	114	12	5
Maroovalam (Maruvalam, *Tam.*)	192	8	0
Collambaukam (Kollambákkam, *Tam.*)	182	9	9
Orangauvaly (Orangávali, *Tam.*)	89	3	8
Tonnaud (Tonnádu, *Tam.*)	238	8	7
Colatore (Kolattúr, *Tam.*)	138	0	4
Neerpair (Nírppér, *Tam.*)	217	10	10
Perively (Periveli, *Tam.*)	488	4	10
Mogaiyoor (Mogaiyúr, *Tam.*)	1,732	4	6
Cayapaukam (Kayappákkam, *Tam.*)	2,120	11	2
Eesoor (Ísúr, *Tam.*)	658	12	3
Iroombaid (Irumbédu, *Tam.*)	939	0	2
Amayamputt (Ámaiyámbattu, *Tam.*).	28	14	0
Vitchoor (Viççúr, *Tam.*)	123	4	7
Velanganore (Velanganúr, *Tam.*)	132	6	5
Periyavelicaud (Periyavelikkádu, *Tam.*)	146	1	1
Vettoor (Vettúr, *Tam.*)	320	5	9
Sharavambaukam (Sharavambákkam, *Tam.*)	225	12	7
Ottivilaugam (Ottivilágam, *Tam.*)	235	1	2
Carimbaukam (Karimbákkam, *Tam.*).	210	14	8
Vembanore (Vembanúr, *Tam.*)	789	1	1
Panayoor (Panaiyúr, *Tam.*)	168	3	9
Vilangaud (Vilángádu, *Tam.*)	297	1	10
Poothoocooppam (Puthukkuppam, *Tam*).	46	0	0
Keelcanday (Kízhkkánde, *Tam.*)	177	11	3
Chinna Velicaud (Shinnavelikkádu, *Tam.*)	192	13	2
Venmaulaharam (Venmálagaram, *Tam.*).	102	4	2
Siroocalattore (Shirugalattúr, *Tam.*).	44	1	5

(*a*) Reduced to *nil* on account of compensation.

(*b*) Since transferred to this talook from Sydapett.

	RS.	A.	P.
Pondore (Póndúr, *Tam.*)	3,627	11	4
Toorayore (Turaiyúr, *Tam.*)	147	0	11
Siroomeilore (Shirumailúr, *Tam.*) ...	446	14	5
Andarcooppam (Ándárkkuppam, *Tam.*).	363	13	5
Chittore (Shittúr, *Tam.*)	165	9	4
Toondam Vellairy (Tundamvelléri, *Tam.*)	117	3	6
Mambaukam (Mámbákkam, *Tam.*) ...	205	10	10
Cullputt (Kalppattu, *Tam.*)	121	3	3
Cayanallore (Kayanallúr, *Tam.*) ...	299	7	7
Pilancooppam (Pilánguppam, *Tam.*) ...	15	2	3
Coomily (Kumizhi, *Tam.*)	102	1	7
Poothooputt (Puthuppattu, *Tam.*) ...	208	15	10
Illaid (Illédu, *Tam.*)	168	7	3
Coccantaungal (Kokkandángal, *Tam.*) ...	49	12	4
Boothoor (Púthúr, *Tam.*)	452	7	8
Moodelliarcooppam (Muthaliyárkkuppam, *Tam.*)	90	14	4
Neinarcooppam (Nayinárkkuppam, *Tam.*)	79	3	3
Othiyoor (Óthiyúr, *Tam.*)	37	11	3
Vanniyanallore (Vanniyanallúr, *Tam.*)...	790	6	6
Poroor (Pórúr, *Tam.*)	200	15	8
Colattanallore (Kollattanallúr, *Tam.*) ...	131	15	1
Noogambal (Nugambal, *Tam.*) ...	245	15	8
Siroonugger (Shirunagar, *Tam*) ...	130	1	7
Periya Kilacaudy (Periyagilakkádi, *Tam.*)	357	7	10
Chinna Kilacaudy (Shinnagilakkádi, *Tam.*)	113	8	4
Shiroo Pinayore (Shiruppináyúr, *Tam.*)	552	7	3
Anaicutt (Anaikkattu, *Tam.*)	1,840	3	10
Tattamputt (Tattámbattu, *Tam.*) ...	251	13	11
Colatore (Kolattúr, *Tam.* Kolatúr*) ...	109	11	7
Madavilaugam (Madavilágam, *Tam.*) ...	165	3	7
Nariyore (Nariyúr, *Tam.*)	127	12	6
Aharam (Agaram, *Tam.*)	80	0	4
Nercoonaputt (Nerkkunappattu, *Tam.*)...	504	8	3
Tauthancooppam (Táthanguppam, *Tam.*)	45	10	7
Tondamanallore (Tondamanallúr, *Tam.*).	174	14	11
Pavanjore (Pavañjúr, *Tam.*)	409	5	2
Coomauracooppam (Kumárakkuppam, *Tam.*)	245	8	1
Total ...	29,850	2	7
Grand Total ...	1,02,185	4	6

COIMBATORE DISTRICT.

Pollachy Talook.

	RS.	A.	P.
Ootcooly (Úttukkuli, *Tam.* Úttukuli *)	4,393	7	8
Shamattore (and) Cotamputty (Shamattúr, *Tam.* Samatúr * (and) Kóttámbatti, *Tam.* Kótámpati *) ...	1,683 1,860	2 15	6 5
Poravipolliem (Poravippálaiyam, *Tam.* Poravipálaiyam *) (*a*).	2,804	12	6
Avalappamputty (Ávalappambatti, *Tam.* Avalappampati *)	4,200	0	0
Ramaputnam (Rámapattanam, *Tam.* Rámapatnam *)...	1,436	9	3
Negamam * (*Tam.*).	2,480	12	8

Oodamalpett Talook.

	RS.	A.	P.
Metrautty (Medrátti, *Tam.* Metráthi *).	1,965	10	10
Toongauvy (Tungávi,* *Tam.*) ...	848	10	8
Meivaudy (Maivádi,* *Tam.*)	561	2	8
Jotamputty (Shóttambatti, *Tam.* Jotampati *)	143	6	9
Vedaputty (Védappatti, *Tam.* Vedapati*)	146	8	1

Caroor Talook.

Andiputty (Ándippatti, *Tam.* Ándipati *) (*b*) ... 5,166 5 3

Coimbatore Talook.

Estate.	Quit-rent.
Meilairipolliem (Mailérippálaiyam, *Tam.*) ... ... Palatooray Nauchipolliem (Pálatturai Náççippálaiyam, *Tam.*) ... Caroonjaumy Gowndenpolliem (Karuñjámikkavundanbálaiyam, *Tam.*). Tumba Gowndenpolliem (Tambákkavundanbálaiyam, *Tam.*) ... Vellimullayputnam (Vellimalaippattanam, *Tam.*) ... ... Naickampolliem (Náyakkambálaiyam, *Tam.*)	1,182 0 0

Collegaul Talook.

Moolloor (and) Ooginyam (Mullúr, *Tam.* (and) Uginiyam, *Tam.*) ... Suttegaul (Shattégálam, *Tam.*)	2,236 0 0

GANJAM DISTRICT.

Ancient Zemindarries.

	RS.	A.	P.
Paulore (Pálúru, *Tel.* Pálúr *) ...	33	14	2
Hoomma (Humma, *Tel.*)	1,038	4	2
Biridy (Biroli, *Oor.* Biridi *) ...	4,456	6	0
Cullicote (Kallikóta, *Tel.* Kallikót*.)	18,975	0	6
Bodagooda (Bodaguda, *Tel.*) ...	4,230	0	0
Dhauracote (Dhárákóta, *Tel.* Dhárákót *)	24,902	5	9
Shergadah (Shérugadá, *Tel.* Sérgadá*) (*a*)	5,817	13	11
Prataupagherry or Chinna Kimedy (Pratápagiri, *Tel.* or Chinna Kimedi,* *Tel.*) (*a*)	20,826	6	11
Vizianagram * or Pedda Kimedy (Vijayanagaramu or Pedda Kimedi,* *Tel.*) ...	23,323	13	5
Cheekaty (Chíkati,* *Tel.*)	33,904	4	8
Soorangy (Surangi,* *Tel.*)	3,545	0	0
Jarada, (Dzarada, *Tel.*) (*a*)	2,025	0	0
Jalantra * (*Tel.*)	7,384	4	3
Boodaurasinghy (Budárashingi, *Tel.*) ...	525	0	0
Mundasa (Mandasá, *Tel.* Mandasa *) ...	14,035	0	0
Cuttingia (Kattingyá, *Tel.*) Hill Mootah ...	50	0	0
Parlakimedy (Parlákimedi,* *Tel.*) (*c*) ...	87,823	1	10
Tarlah (Tarlá,* *Tel.*)	4,000	0	0

Proprietary Estates.

Principal Division.

	RS.	A.	P.
Atagadah (Atogodo, *Oor.* Átagadá*)	59,927	13	2
Aska* (Ashiká, *Tel.*)	4,849	2	3
Coorla (Kurla,* *Tel.*)	5,427	11	1
Devabhoomy (Dévabhúmi,* *Tel.*) ...	5,188	5	0
Barwah (Báruva,* *Tel.*)	3,900	0	0
Pettah (Péta, *Tel.*)	3,900	0	0

(*a*) Is under the management of the Court of Wards. (*b*) Is under the management of the Collector.
(*c*) The talook is under the management of the Court of Wards.

Sub-division.

	RS.	A.	P.
Ragoonathapooram (Raghunádhapuramu, *Tel.* Raghunáthapuram *)	9,817	8	0
Nundigaum (Nandigámu, *Tel.*, Nandigám,*) comprising eastern half of Nundigaum and western half of Talagaum (Talagámu, *Tel.*)	9,128	0	0
Penta *Tel.*), a sub-division of Nundigaum	548	8	0
Chinnaury Gokarnapully (Chinnárigókarnapalli, *Tel.*), a sub-division of Nundigaum	141	0	0
Talagaum (comprising eastern half of Talagaum and western half of Nundigaum)	9,735	0	0
Bharanigaum (Bharinigámu, *Tel.*)	82	0	0
Temboor (Tembúru, *Tel.*)	4,910	0	0
Nowgaum (Naugámu, *Tel.*), sub-division of Temboor	2,257	3	5
Khallada, (*Tel.*), a sub-division of Nowgaum	2,257	3	5
Potooloor (Pótulúru, *Tel.*), a sub-division of Nowgaum	67	15	10
Bejjipully (Bejjipalli, *Tel.*), a sub-division of Nowgaum	327	9	4
Pautatekkaly (Pátatekkali,* *Tel.*)	9,816	0	0
Gopalpore (Gópálapuramu, *Tel.* Gopálpur *)	3,698	12	5
Peddatoongam (Peddatungamu, *Tel.*)	424	1	9
Talavalasa (*Tel.*)	424	1	10
Chinnatoongam (Chinnatungamu, *Tel.*)	424	9	10
Saukipully (Tsákipalli, *Tel.*)	868	11	0

	RS.	A.	P.
Consoolacottore (Konusulakottúru, *Tel.*)	393	3	6
Tarlipett (Tarlipéta, *Tel.*)	255	8	0
Boddaum (Boddámu, *Tel.*)	89	5	3
Belamarapalavalasa (*Tel.*)	1,042	11	9
Chittivalsa (Chittivalasa, *Tel.*)	2,074	2	5
Jarjanjy (Jarjanji, *Tel.*)	1,001	15	1
Yellamanchily (Yallamanchili, *Tel.*).	654	1	8
Rajapooram (Rásappuram, *Tam.* Rájapuram *)	76	6	6
Soosaraum (Susarámu, *Tel.*)	332	13	10
Sidibehera Cottoor (Sidibehara Kottúru, *Tel.*)	101	15	1
Malagaum (Malagámu, *Tel.*)	570	15	1
Zonnapaud (Dzonnapádu, *Tel.*)	91	12	3
Akkavalasa (*Tel.*)	278	5	9
Sowdaum (Saudámu, *Tel.* Savudám*)	686	2	10
Danta (*Tel.*)	2,309	5	5
Tilaury (Tilári, *Tel.*)	3,654	0	4
Santa Lutchmeepooram (Sánta Lakshmípuramu, *Tel.*)	1,192	0	0
Talasamoodram (Talasamudramu, *Tel.*)	2,383	0	0
Oorlaum (Urlámu, *Tel.* Urlám,*) (*b*).	12,467	3	8
Devaudy, (Dévádi, *Tel.*) a sub-division of Oorlaum (Urlámu, *Tel.* Urlám,*).	1,113	4	4
Caracavalsa (Karakavalasa, *Tel.*)	4,048	0	0
Moonagavalsa (Munagavalasa, *Tel.*)	3,978	0	0
Gottipully (Gottipalli, *Tel.*)	2,034	0	0
Yembaraum (Yembarámu, *Tel.*) subdivision of Gottipully (*a*)	2,015	0	0
Shreecoormam (Shríkurmamu, *Tel.*)	......		

GODAVERY DISTRICT.

Ancient Zemindarries.

	RS.	A.	P.
Kotipully (Kótipalli, *Tel.*) in the Vizianagram Zemindarry (*a*)	......		
Pittapore (Pit'hápuramu, *Tel.* Pithápuram *)	2,49,002	9	10
Nidadvole and Baharjully (Nidadavólu, *Tel.* Nidadavól * and Baharjhalli, *Tel.*)	1,15,177	10	11
Ambarapett (Ambarapéta, *Tel.* Ambarapet *)	16,091	7	8
Cotaum (Kot'hámu, *Tel.* Kothám *)	26,429	3	9
Vaigayammapett (Végáyammapéta, *Tel.* Végayammapet *)	8,337	13	9
Tungellamoody (Tangellamúdi,* *Tel.*).	5,143	0	0
Shinganagoodem (Shinganagúdemu, *Tel.*)	46	0	0

	RS.	A.	P.
Vilasa (*Tel.*)	1,440	11	9
Zanoopully (Dzanupalli, *Tel.*)	218	6	8
Zaulimoody (Dzálimúdi, *Tel.*)	254	3	3
Telikicherla (*Tel.*)	943	5	3
Goondepully (Gundépalli, *Tel.*)	962	8	0
Panangipully (Pánangipalli, *Tel.*)	664	12	8
Hoondeshwarapooram (Hundéshvarapuramu, *Tel.*)	630	0	4
Shirasavilly Sauvaram (Shirasavilli Sávaramu, *Tel.*)	300	3	11
Buntoomilly (Bantumilli, *Tel.*)	200	0	0
Mooccaumala (Mukkámala, *Tel.*)	107	12	0
Bhadrachellam and Rekapully (Bhadráchalamu, *Tel.* Bhadráchalam * and Rékapalle, *Tel.* Rékapalli *)	16,720	10	8

Proprietary Estates.

	RS.	A.	P.
Dontamore (Dontamúru, *Tel.*)	3,248	0	0
Rayavaram (Ráyavaramu, *Tel.*)	1,998	8	0
Veeravaram (Víravaramu, *Tel.* Víravaram *)	26,876	8	0
Palivela * (*Tel.*)	18,904	13	5
Kirlampoody (Kirlámpúdi, *Tel.* Kirlampúdi*)	23,282	10	0
Gopalpore (Gópálapuramu, *Tel.* Gopálpur *)	18,449	7	10
Colunka (Kólanka,* *Tel.*)	14,350	8	0
Yellamanchily (Yellamanchili,* *Tel.*).	8,816	1	8
Chinchinauda (Chinchináda, *Tel.*)	1,627	13	0
Chinnamaumidipully (Chinnamámidipalli, *Tel.*)	239	10	11
Neredoomilly (Nérédumilli, *Tel.*)	445	4	5
Varidhanam (Varidhanamu, *Tel.*)	532	2	11
Dhoomantoonigoodem (Dhúmantunigúdemu, *Tel.*)	142	7	8
Gollaprole (Gollaprólu, *Tel.* Gollapról *)	11,567	4	11
Keshanacooroo (Késhanakurru, *Tel.* Kesanakurru *)	11,392	11	1
Capileshwarapooram (Kapiléshvarapuramu, *Tel.*)	8,759	7	5
Vasantavauda (Vasantaváda,* *Tel.*)	7,349	9	0
Narrainpooram (Náráyanapuramu, *Tel.*)	2,948	4	8
Malakacherla (*Tel.*)	1,495	0	0
Dooddepoody (Duddépúdi, *Tel.*)	378	0	0
Gootaula (Gútála,* *Tel.*)	6,741	4	2
Moongondapollem (Mungondapálayamu, *Tel.*)	545	8	0
Chidipy (Chidipi, *Tel.*)	1,665	13	9

	RS.	A.	P.
Peddaiham (Peddéhamu, *Tel.*)	2,628	11	0
Tiroogoodoometta (Tirugudumetta, *Tel.*)	1,856	10	8
Inzaram (Indzaramu, *Tel.*)	3,205	15	8
Polaveram (Pólavaramu, *Tel.*)	6,710	2	9
Pattesam * (Pattesamu, *Tel.*)	5,245	7	4
Annadevarpaud (Annadévarapádu, *Tel.*)	3,728	11	6
Prakkilunka (Prakkilanka, *Tel.*)	1,767	5	10
Vangalapoody (Vangalapúdi, *Tel.*)	3,788	11	0
Veeravallipollem (Víravallipálayamu, *Tel.*)	3,533	0	10
Nadavapully (Nadavapalli, *Tel.*)	3,003	1	4
Tyaujampoody (Tyájampúdi, *Tel.*)	2,791	4	6
Cooroocore (Kurukúru, *Tel.*)	1,482	9	10
Billoomilly (Billumilli, *Tel.*)	1,619	13	6
Lakkavaram (Lakkavaramu, *Tel.*)	2,643	9	9
Jangamreddygoodem (Jangamareddigúdamu, *Tel.*)	499	10	0
Dharmavaram (Dharmavaramu, *Tel.*)	2,402	15	11
Craupa (Krápa, *Tel.*)	2,385	13	9
Malacapully (Malakapalli, *Tel.*)	2,282	0	0
Cautavaram (Kátavaramu, *Tel.*)	2,121	12	9
Yaudavole (Yádavólu, *Tel.*)	2,161	15	5
Conitivauda (Kónitiváda, *Tel.*)	1,985	6	3
Borrampollem (Borrampálem, *Tel.*)	1,938	15	7
Vaigavaram (Végavaramu, *Tel.*)	787	15	5
Gowryputnam (Gaurípatnamu, *Tel.*)	1,853	14	4
Moormanda (Murumanda, *Tel.*)	1,850	2	0
Anantavaram (Anantavaramu, *Tel.*)	1,760	6	0
Maugaum (Mágámu, *Tel.*)	1,745	2	8

(*a*) Peshcush included in the Vizianagram Zemindarry.
(*b*) The talook is under the management of the Court of Wards.

	RS.	A.	P.
Yernagoodem (Yernagúdemu, *Tel.* Yernagúdem *)	1,725	9	3
Ooncaramilly *alias* Rauvimetta (Unakaramilli, *Tel. alias* Rávimetta, *Tel.*) ...	1,630	8	7
Calavalpully (Kalavalapalli, *Tel.*) ...	1,346	13	8
Patavala Gooroozaunapully (Patavalagurudzánapalli, *Tel.*)	1,296	5	1
Mallavaram (Mallavaramu, *Tel.*) ...	947	4	11
Joharallahbauda *alias* Hookumpett (Joharállábádá, *Tel. alias* Hukumpéta, *Tel.*)	1,401	15	0
Bootchampett (Buttsampéta, *Tel.*) ...	738	10	0
Gangole (Gangólu, *Tel.*)	1,264	13	10
Vella (*Tel.*)	1,240	2	6
Bayyanagoodem (Bayyanagúdemu, *Tel.*)	985	10	3
Potoocoorroo (Pótukurru, *Tel.*)	910	13	5
Bommoor (Bommúru, *Tel.*)	833	6	2
Ooppauda (Uppáda, *Tel.*) and Ameenbaudah (Amínbádá, *Tel.*)	673	0	7
Bheemole (Bhímólu, *Tel.*)	3,026	4	10
Goottinadivy (Guttinadívi, *Tel.*) ...	763	1	11
Condagoodem (Kondagúdemu, *Tel.*) ...	753	8	8
Pettah (Péta, *Tel.*)	546	4	0
Veeravaram (Víravaramu, *Tel.* Víravaram *)	554	10	7
Dandangy (Dandangi, *Tel.*)	564	11	5
Soorasauny Yanam (Súrasáni Yánám, *Tel.*)	529	4	3
Neelapully (Nílapalli, *Tel.*)	479	15	7
Nundigoodem (Nandigúdemu, *Tel.*) ...	364	8	0
Nullamillipaud (Nallamillipádu, *Tel.*) ...	203	4	11
Gavaravaram (Gavaravaramu, *Tel.*) ...	145	2	3
Juggannadapooram (Jagannádhapuramu, *Tel.*)	112	7	8
Payidimetta (*Tel.*)	91	2	1
Vadlaputlanootnam (Vadlapatlanútanamu, *Tel.*)	86	11	9
Trimangoodem (Tirumanagúdem, *Tel.*)...	64	8	9
Goodigalla Bhanga (Gudigallabhágamu, *Tel.*)	57	13	8
Anoomoolunka (Anumullanka, *Tel.*) ...	611	0	0
Juggampett (Jaggammapéta, *Tel.* Jaggammapet *)	33,062	5	8

KISTNA DISTRICT.

	RS.	A.	P.
Chintalapauty (Chintalapáti *Tel.* Chintalapád *)	17,500	7	10
Ventrapragada (*Tel.*)	15,699	3	1
Vooyyoor (Vuyyúru, *Tel.*)	15,698	9	3
Mirjapooram (Mírjápuramu, *Tel.*) ...	15,925	1	8
Capileswarapooram (Kapiléshvarapuramu, *Tel.*).	15,891	12	0
Tailaprole (Télaprólu, *Tel.*)	15,852	12	9
Medoor (Médúru, *Tel.*)	16,345	11	3
Devaracote (Dévarakóta, *Tel.* Devarakót *)	81,397	0	0
Chevendra (Chévéndra, *Tel.* Chevendra*)	4,776	0	2
Sanoobanda (Tsanubanda, *Tel.*) ...	1,357	0	0
Meilavaram Moottah Poolloor (Mailavaram Mut'há Pullúru, *Tel.*) ...	679	5	7
Do. Seventeen villages ...	4,150	15	4
Meilavaram Moottah (Mailavaram Mut'há, *Tel.*)	3,872	3	0
Ootcore (Útukúru, *Tel.*)	2,156	0	0
Half of Tiroovore (Tiruvúru, *Tel.*) ...	2,177	0	0
Inagadapa (*Tel.*)	1,236	5	11
Half of Gumpalagoodem (Gampalagúdemu, *Tel.*)	1,295	0	0
Western portion of Gumpalagoodem (Gampalagúdemu, *Tel.*)	1,291	8	0
Moongaula Pergunnah (Munagála Paraganá, *Tel.*)	4,572	9	6
Valloor Samoot (Vallúru Samutu, *Tel.*).	20,493	1	2
Goodoor Pergunnah (Gúdúru Paraganá, *Tel.* Gúdúrpargana *), ...	35,588	9	7
Pingoodoor Lunka (Pinagúdúru Lanka, *Tel.*)	319	0	0
Vissanapett (Vissannapéta, *Tel.*) ...	4,886	0	0
Krittiventy Samoot (Krittiventi Samutu, *Tel.*)	2,910	0	0
Rayavaram (Ráyavaramu, *Tel.*) ...	908	9	7
Balliparroo (Balliparru, *Tel.*)	424	0	0
Coochipoody (Kúchipúdi, *Tel.*) ...	229	4	0
Narsaya Goodem (Narsáyagúdemu, *Tel.*)	138	11	5
Half of Tiroovore (Tiruvúru) Moottah.	2,219	0	0
Calagara (Kalagara, *Tel.*)	812	4	0
Pootraila (Putréla, *Tel.*)	510	4	0
Condore and Cumbampaud (Kondúru, *Tel.* and Kambhampádu, *Tel.*) ...	507	0	0
Kokilampaud (Kókilampádu, *Tel.*) ...	75	0	0
Pengolanoo (Pengolanu, *Tel.*).	1,262	0	0
Moonoocoolla (Munukulla, *Tel.*) ...	71	0	0
Comirey (Komire, *Tel.*) Moottah ...	703	8	0
Lingagherry (Lingagiri, *Tel.*)	486	8	0
Devarpully (Dévarapalli, *Tel.*)	461	0	0
Chinna Gollepollem (Chinna Gollapálayamu, *Tel.*)	181	2	6
Chitty Goodoor (Chitti Gúdúru, *Tel.*) ...	524	0	0

MADRAS DISTRICT.

	RS.	A.	P.
Mambalam (Mámbalam, *Tam.*)	425	7	4
Chintaudripett (Shindátharippéttai, *Tam.*)	105	0	0
Pooliyoor (Puliyúr, *Tam.*)	88	13	9
Trivateeshwarampett (Tiruvattísuvarambéttai, *Tam.*)	87	12	4

MADURA DISTRICT.

	RS.	A.	P.
Ramnaud (Rámanáthappuram, *Tam.* Ramnad *)	3,13,997	6	2
Shivagunga (Shivakkangai, *Tam.* Sivaganga *)	2,58,640	14	0
Palaiyamputty (Pálaiyambatti, *Tam.*).	8,334	11	4
Pandalgoody (Pandalkkudi, *Tam.*) ...	8,140	15	11
Paulavanuttam (Pálavanattam, *Tam.*).	8,204	4	9
Rettayambaudy (Rettayambádi, *Tam.* Retayambádi *)	11,978	11	2
Veloor (Vélúr, *Tam.* Velúr *)	10,568	2	3
Velliyacoondam (Velliyakkundam, *Tam*).	2,183	11	8
Siroopaulay (Shiruppálai, *Tam.*) ...	903	10	11
Pooliyangoolam (Puliyangulam, *Tam.*) in Tiroomungalam (Tirumangalam,* *Tam.*)	1,931	8	9
Jotila Naickanore (Shóthilanáyakkanúr, *Tam.*)	1,070	3	11
Oottapa Naickanore (Uttappanáyakkanúr, *Tam.*)	2,583	15	4
Doddappa Naickanore (Tottappanáyakkanúr, *Tam.*)	2,179	2	8
Keelacottah (Kílakkóttai, *Tam.*) ...	480	2	9
Nadoocottah (Nadukkóttai, *Tam.*) ...	773	14	4
Melacottah (Mélakkóttai, *Tam.*) ...	910	4	1
Peraiyoor (Péraiyúr, *Tam.* Peraiyúr *)	11,857	4	8
Shauptore (Sháppattúr, *Tam.* Sáptúr *).	8,813	7	4
Shandaiyoor (Shandaiyúr, *Tam.*) ...	3,697	1	9
Yeloomullay (Ezhumalai, *Tam.*)... ...	3,612	11	4
Bodinaickanoor (Pódináyakkanúr, *Tam.* Bodináyakanúr *)	15,347	2	0
Gandamanayakkanore (Kendamanáyakkanúr, *Tam.*)	13,414	13	3
Tevauram (Téváram, *Tam.*)	1,100	14	3
Yerachakkanaickanore (Érasakkanáyakkanúr, *Tam.*)	2,061	15	8
Cunnivaudy (Kannivádi,* *Tam.*) ...	38,129	11	9
Ammayanayakanoor (Ammayanáyakkanúr, *Tam.* Ammayanáyakanúr *) ...	13,668	6	4
Ayacoody (Áyakkudi, *Tam.* Áyakudi*).	16,785	2	3
Yideiyancottah (Idaiyangóttai, *Tam.* Idaiyankóta *)	7,000	0	0
Mambauray (Mámbárai, *Tam.*)	1,500	0	0

MALABAR DISTRICT.

Rajah.

	RS.	A.	P.
Sultan Ally, Rajah of Cannanore * (Kannúra, *Mal.*)...	15,000	0	0

Leading Jenmies.

Nilamboor Tatcharacauvil Tiroomulpaud (Nilampúra Taççarakkávil Tirumulpátu, *Mal.*)	......
Amarambalatta Edavanna Tiroomulpaud (Amarampalatta Etavanna Tirumulpátu, *Mal.*)	......
Collangode Vengoonattil Valiya Nambidy (Kollankótta Vennunnátil Valiya Nampiti, *Mal.*)	......

NELLORE DISTRICT.

	RS.	A.	P.
Vencatagherry (Venkatagiri,* *Tel.*) ...	3,74,310	12	1
Moottiaulpaud (Mutyálapádu, *Tel.*) ...	2,000	0	0
Choondy (Tsundi, *Tel.* Chundi *) ...	(*a*) 18,000	0	0
	(*b*) 3,219	4	11
	21,219	4	11
Calastry (Kálahasti,* *Tel.*) (*c*) ...	......		

SALEM DISTRICT.

Salem Talook.

	RS.	A.	P.
Salem * (Shélam, *Tam.*)	15,959	9	7
Annadaunaputty (Annathánappatti, *Tam.* Annadánapati *)	3,790	13	3
Pullipputty (Pallippatti, *Tam.*)	3,858	12	0
Cannancoorchy (Kannánguriççi, *Tam.* Kannánkurichi *)...	9,602	15	5
Alagaupooram (Alagáppuram, *Tam.*) ...	2,817	6	4
Caroocalvaudy (Karukkalvádi, *Tam.* Karukalvádi *)	7,642	3	3
Razipore (Rásippuram, *Tam.*)	2,964	0	6
Raukiputty (Rákkippatti, *Tam.*)	517	12	8
Shingalauntapooram (Shingalándappuram, *Tam.* Singalántapuram *)	5,129	14	2
Caucauvery (Kákkávéri, *Tam.*)	2,641	3	8
Chundrasekharapooram (Shandiraségarappuram, *Tam.*)	1,816	0	9

Ahtoor Talook.

	RS.	A.	P.
Sheccadiputty (Shakkadippatti, *Tam.*) ...	2,020	4	5

Namcull Talook.

	RS.	A.	P.
Namcull (Námakkal, *Tam.* Námakal *) ...	7,880	0	4
Condisettiputty (Kondisettippatti, *Tam.*).	1,837	9	2
Moottanchetty Mittah (Muttáñjettimittá, *Tam.* Mutanchetti Mitta *)	7,507	8	10
Laddivaudy (Lattivádi, *Tam.*)	3,179	15	6
Ponnairy (Ponnéri, *Tam.*)	2,135	8	10
Agrahaura Vaulavandy (Akkiragáraválavandi, *Tam.*)	2,629	1	3
Moottoogaputty (Muttugáppatti, *Tam.*) ...	4,929	15	8
Tippara Mahdevy (Tippara Magáthévi, *Tam.*)	2,356	11	4
Yeroomayputty (Erumaippatti, *Tam.* Erumaipati *) (*d*)	4,296	0	9
Palayapolliem (Pazhayappálaiyam, *Tam.*)	3,150	4	7
Powtram (Pavittiram, *Tam.*)	4,034	4	0
Totamoodayamputty (Tóttamudayámbatti, *Tam.*)	1,252	0	2
Poodoocottah (Puthukkóttai, *Tam.*) ...	4,943	4	2
Toosoor (Túsúr, *Tam.*)	6,191	13	3
Mettooputty (Méttuppatti, *Tam.*) ...	1,667	3	9
Periyapallambauray (Periyaballambárai, *Tam.*)	3,465	8	8
Veloocoorchy (Vélukkuriççi, *Tam.* Velukurchi *)	7,894	13	10
Maroorputty (Marúrppatti, *Tam.*) ...	1,784	4	1
Taulambaudy (Tálambádi, *Tam.*) ...	1,486	2	4
Minnampully (Minnámballi, *Tam.*) ...	1,702	4	9
Pottanam (Pottanam, *Tam.* Potanam *)...	1,989	7	8
Mothalaputty (Mothalappatti, *Tam.* Modalaipati *)	5,431	1	1
Toommancoorchy (Tummanakkuriççi, *Tam.*)	5,438	1	3
Tolore (Tólúr, *Tam.*)	3,556	5	8
Shendamungalam (Shéndamangalam, *Tam.*)	4,306	4	5
Sholasiraumany (Shólasirámani, *Tam.* Sólasirámani *)	5,347	0	2
Tidoomal (Tidumal, *Tam.*)	5,237	11	9
Coodacherry (Kúdaççéri, *Tam.*)	3,546	10	5
Conoor (Kónúr, *Tam.*)	3,247	9	4
Perooncoorchy (Perunguriççi, *Tam.*) ...	3,340	3	6
Coopericapolliem (Kupperikkáppálaiyam, *Tam.*)	2,026	6	4
Pilloor (Pillúr, * *Tam.*)	4,514	6	4
Keerambore (Kírambúr, *Tam.*)	3,632	15	7
Shailore (Shélúr, *Tam.*)	4,361	7	8
Dindamungalam (Tindamangalam, *Tam.*).	7,283	3	5
Circarvalavendy Mittah (Sharkkárvalavéndimittá, *Tam.* Sarkárvalavendimittá *	6,249	13	11

Trichengode Talook.

	RS.	A.	P.
Animoor Mittah (Animúrmittá, *Tam.* Animúr Mitta *)	6,401	11	8
Periyamanaly (Periyamanali, *Tam.*) ...	1,352	15	9
Chinnamanaly (Shinnamanali, *Tam.*) ...	1,538	4	2
Molipully (Mólippalli, *Tam.*)	5,022	4	2
Poottoor (Puttúr, *Tam.* Putúr *)	12,189	8	4
Shittalandore (Shittalandúr, *Tam.*) ...	3,675	11	5
Minnampully (Minnámballi, *Tam.*) ...	3,368	4	1
Coccaley (Kókkalé, *Tam.*)	2,425	12	7
Comauramungalam (Komáramangalam,* *Tam.*)	5,901	14	1
Comaurapolliem (Komárappálaiyam, *Tam.*)	3,648	3	2
Toccavaudy (Tokkavádi, *Tam.*)	2,968	2	8
Gowndenpolliem (Kavundanbálaiyam, *Tam.*)	3,088	13	6
Culyauny (Kalliyáni, *Tam.*)	1,847	15	2
Moonjanore (Muñjanúr, *Tam.*)	1,530	10	8
Oonjiny (Uñjini, *Tam.*)	2,639	2	7
Palamode (Pálamédu, *Tam.*)	2,782	13	0
Cauttoopolliem (Káttuppálaiyam, *Tam.*)...	657	4	9
Morangam (*Tam.*)	1,750	10	2
Caroomanore Mittah (Karumanúrmittá, *Tam.* Karumanur Mitta *)	5,558	9	10
Coccaroyanpettah (Kokkaráyanbéttai, *Tam.* Kokkáráyanpet *)	8,661	2	0
Manapauray (Manappárai, *Tam.*)	2,708	3	11
Shunkagherry (Shangagiri, *Tam.*) ...	3,104	14	11
Cottay Varoothamputty (Kóttaivaruthambatti, *Tam.*)	1,678	15	11
Conganapooram (Konganappuram, *Tam.* Konganapuram *)	8,429	5	8
Iroogalore (Irugálúr, *Tam.*)	2,801	14	6

(*a*) Peshcush.
(*b*) Quit-rent on inams.
(*c*) The peshcush is paid in the North Arcot District only a portion of the zemindarry is situated in this district.
(*d*) Is under the management of the Court of Wards.

Dharmapoory Talook.

	RS.	A.	P.
Pungoonuttam (Pangunnattam, *Tam.*) ...	1,519	5	7
Neccoondy (Nekkundi, *Tam.*)	2,351	6	2
Noolahully (Núlahalli, *Tam.*)	2,498	3	0
Reddihully (Rettihalli, *Tam.*)	2,478	11	4
Paupauraputty (Páppárappatti, *Tam.*) ...	690	8	0
Mauthehully (Máthéhalli, *Tam.*)	681	10	3
Paneycoolam (Panégolam, *Tam.*)	582	13	0
Vailamputty (Vélambatti, *Tam.*)	180	5	7
Pullipputty (Pallippatti, *Tam.*)	306	2	9
Veppilay (Véppilai, *Tam.*)	485	11	8
Kittanhully (Kittanahalli, *Tam.*)	293	13	3
Hanoomantapooram (Hanumandappuram, *Tam.*)	1,710	4	0
Gollahully (Kollahalli, *Tam.*)	255	0	4
Paupinaickamputty (Páppináyagambatti, *Tam.*)	3,476	7	7
Baivhully (Pévuhalli, *Tam.*)	1,604	15	2
Trimalvaudy (Tirumalaivádi, *Tam.*) ...	703	3	0
Sooccanhully (Shukkanahalli, *Tam.*) ...	987	1	11
Maraundahully (Márándahalli, *Tam.*) ...	1,742	9	11
Belagayapooram (Pelagáyappuram, *Tam.*)	1,698	4	10

Krishnagherry Talook.

	RS.	A.	P.
Coorumbarpully (Kurumbarppalli, *Tam.*). ...	3,327	13	9
Shaumandamullay (Shámandamalai, *Tam.*)	709	8	3
Coondoorpully Mittah (Kundúrappallimittá, *Tam.* Kundúrapalli Mitta *)	312	1	4
Tippanapully (Tippanappalli, *Tam.*) ...	729	2	10
Bellaurapully (Pellárappalli, *Tam.*) ...	5,710	15	4
Payanapully (Paiyyanappalli, *Tam.*) ...	278	4	9
Shandaurapully (Shandárappalli, *Tam.*) ...	706	2	4
Jagadevy (Shagathévi, *Tam.*)	1,890	6	0
Atchamungalam (Açççamangalam, *Tam.*). ...	631	0	7
Poorooshottamapooram (Purusóttamappuram, *Tam.*)	598	1	0
Eicondamcottapully (Aikkondam Kottappalli, *Tam.*)	720	12	10
Talihully (Talihalli, *Tam.*)	1,890	0	3
Penneswaramatam (Pennésuvaramadam, *Tam.*)	2,006	3	6
Auvatvaudy (Ávadvádi, *Tam.*)	1,960	0	5
Nalloor (Nallúr, *Tam.*)	1,432	14	0
Nammaundahully (Nammándahalli, *Tam.*)	1,360	2	0
Mahendramungalam (Magéndiramangalam, *Tam.*)	4,398	9	6
Royacottah (Ráyakkóttai, *Tam.*)	1,266	7	3
Ilagam (Hilagam, *Tam.*)	1,275	10	8
Shooligoonta (Shúlikkunda, *Tam.*) ...	555	3	7
Oolagam (Úlagam, *Tam.*)	1,829	11	0

Oossoor Talook.

	RS.	A.	P.
Baugalore (Págalúr, *Tam.* Bágalúr *) ...	6,719	13	5
Shoolagherry (Shúlagiri, *Tam.*)	5,521	12	0
Ancoosagherry Poliput (Angusagiripyappattu, *Tam.* Ankusagiri*)	7,190	10	0

Tripatore Talook.

	RS.	A.	P.
Devastaunam (Tévattánam, *Tam.*)	976	8	8
Pullipputty (Pallippatti, *Tam.*)	545	3	7
Madanancherry (Mathanañjéri, *Tam.*) ...	390	13	6
Yilayanagaram (Ilaiyánagaram, *Tam.*) ...	333	9	2
Chiccanacooppam (Shikkanakkuppam, *Tam.*)	192	11	8
Alanjicolam (Alañjikkolam, *Tam.*)	781	1	1
Amboorpettah (Ambúrppéttai, *Tam.* Amburpet *)	3,994	15	3
Shammandicooppam (Shammandikkuppam, *Tam.*)	1,401	12	6
Chinna Veppamputt (Shinna Véppambattu, *Tam.*)	1,679	13	0
Yelagherrymittah (Élagirimittá, *Tam.* Yelagiri Mitta *)	5,891	15	7
Tauthavully (Táthavalli, *Tam.*)	2,532	3	1
Shelathampully (Shalathampalli, *Tam.*) ...	3,324	14	0
Bommeycooppam (Pommaikkuppam, *Tam.* Bommayakuppam *)	5,461	5	0
Rauchamungalam (Ráççamangalam, *Tam.*)...	1,037	13	0
Anayairy (Anaiyéri, *Tam.*)	891	13	7
Caucangaray (Kágangarai, *Tam.*)	833	4	8
Cunnaulaputty (Kannálambatti, *Tam.*) ...	743	4	6
Candily (Kandili, *Tam.*)	1,436	1	2
Chinnacandily (Shinnakkandili, *Tam.*) ...	469	11	10
Lakkinaickamputty (Lakkináyagambatti, *Tam.*)	4,255	14	11
Poottaharam (Puttagaram, *Tam.*)	927	8	3
Nuttam (Nattam, *Tam.*)	2,597	15	10
Periyagaram (Periyagaram, *Tam.*)	1,755	15	0
Casinaickamputty (Kasináyagambatti, *Tam.*)	1,099	1	8
Moocanore (Múkkanúr, *Tam.*)	876	12	8
Cathirimungalam (Kathirimangalam, *Tam.*)	658	6	1
Pauchal (Páççal, *Tam*)	1,770	14	4
Tiriyaulam (Tiriyálam, *Tam.*)	4,504	8	1

Ootancaray Talook.

	RS.	A.	P.
Cadatore (Kadattúr, *Tam.* Kadatúr *) ...	4,295	0	10
Taulanuttam (Tálanattam, *Tam.*)	763	10	0
Bommady (Pommadi, *Tam.*)	2,803	7	1
Anandore (Ánandúr, *Tam.*)	1,526	0	9
Vaniyambaudy (Vániyambádi, *Tam.*) ...	764	1	7
Tiroovanaputty (Tiruvanambatti, *Tam.*) ...	777	8	3
Cammenulloor (Kammenallúr, *Tam.*) ...	8,575	1	0

TANJORE DISTRICT.

	RS.	A.	P.
Gandharvacottah (Kandaruvakkóttai, *Tam.*)	6,577	4	11
Shillattore (Shillattúr, *Tam.*)	2,165	13	9
Palayavanam (Pálayavanam, *Tam.*)	3,767	12	0
Paupanaud (Páppánádu, *Tam.*)	4,316	6	6
Shingavanam (Shingavanam, *Tam.*)... ...	3,261	9	10
Mathoocoor (Mathukkúr, *Tam.*)	2,491	7	10
Nedoovausal (Neduvásal, *Tam.*)	2,037	6	6
Shendangoody (Shéndangudi, *Tam.*) ...	2,046	10	2
Cullacottah (Kallákkóttai, *Tam.*)	1,701	13	6
Pautharancottah (Pátharangóttai, *Tam.*) ...	1,369	9	11
Attivetty (Attivetti, *Tam.*)	913	14	4
Conoor (Kónúr, *Tam.*)	433	3	11
Poonavausal (Punavásal, *Tam.*)	350	15	7

TINNEVELLY DISTRICT.

	RS.	A.	P.
Yettiyapooram (Ettaiyáppuram, *Tam.* Etaiyápuram *)	88,351	10	9
Shivagherry (Shivakkiri, *Tam.* Sivagiri *) .	54,580	2	0
Ootoomullay (Úttumalai,* *Tam.*)	26,971	4	9
Oorcaud (Úrkkádu, *Tam.* Urkád *)	12,926	9	11
Maniyauchy (Maniyáççi, *Tam.* Maniyáchi*).	1,808	12	4
Shettore (Shéttúr, *Tam.* Sétúr *)	12,536	13	1
Shingamputty (Shingambatti, *Tam.* Singampati *)	8,008	2	11
Munnarcottah (Mannárkkóttai, *Tam.* Munnárkóta *)	5,093	10	5
Shennelgoody (Shennelkkudi, *Tam.*) ...	4,503	7	0
Avoodayapooram (Ávudaiyáppuram, *Tam.*) .	2,941	1	7
Cadambore (Kadambúr,* *Tam.*)	3,742	0	2
Gollaputty (Kollappatti, *Tam.*)	3,223	9	1
Attangaray (Áttangarai, *Tam.*)	3,372	7	4
Talavancottah (Talaivangóttai, *Tam.*) ...	2,732	9	0
Pauvauly (Páváli, *Tam.*)	2,701	12	4

	RS.	A.	P.
Mailmaunday (Mélmándai, *Tam.*)	1,412	15	4
Alagapoory (Azhagáppuri, *Tam.*)	669	4	4
Shooranday (Shurandai, *Tam.*)	668	7	0
Collancondaun (Kollangondán, *Tam.*)	24	14	10
Nadoovacoorchy (Naduvakkuriççi, *Tam.*) Minor Division	303	6	7
Coolatoor (Kulattúr)	1,897	5	8
Peroorany (Pérúrani, *Tam.*) $\frac{2}{3}$rds	1,423	0	2
Do. (do.) $\frac{1}{3}$rd	748	7	10
Cauraycoorchy (Káraikkuriççi, *Tam.*)	1,258	5	8
Nadoovacoorchy (Naduvakkuriççi, *Tam.*) Major Division	1,223	9	7
Poycaycoottaulaperry (Poykkaikkuttálappéri)	514	9	2
Notchicoolam (Noççikkulam, *Tam.*)	991	4	11
Caudalgoody (Kádarkkudi, *Tam.*)	880	9	8
Malleeswarapooram (Mallísuvarappuram, *Tam.*)	880	9	9
Vadamullaypooram (Vadamalaippuram, *Tam.*)	880	9	8
Soobramanyapooram (Shuppiramaniyappuram, *Tam.*)	880	9	8
Soondraputchaiyaupooram (Shundarappaççaiyáppuram, *Tam.*)	880	9	8
Soccamputty (Shokkambatti, *Tam.*)	4,053	12	8
Veiravacoolam (Vairavangulam, *Tam.*)	4,180	0	0
Neinar Agaram (Nayináragaram, *Tam.*)	2,059	9	2
Cumbanairypoothoocoody (Kambanéripputhukkudi, *Tam.*)	2,003	3	9
Oormeniyalagiyaun (Úrméniyazhagiyán, *Tam.*)	2,122	4	10
Coonnacoody (Kunnakkudi, *Tam.*)	1,153	0	11

	RS.	A.	P.
Trimalnaick Poothoocoody (Tirumalaináyakkanbuthukkudi, *Tam.*)	2,069	4	4
Tiroovettay Nalloor (Tiruvéttainallúr, *Tam.*)	1,645	0	2
Veerirooppoo (Víriruppu, *Tam.*)	458	4	6
Coolashekhara Mungalam (Kulaségaramangalam, *Tam.*)	2,029	4	3
Vallam (Vallam, *Tam.*)	825	0	0
Sillaraypooravoo (Shillaraippuravu, *Tam.*)	342	8	0
Shivanaudanore (Shivanádánúr, *Tam.*)	474	6	0
Mannadichery (Munnadiççéri, *Tam.*)	213	2	0
Coolayanairy (Kulaiyanéri, *Tam.*)	674	10	0
Anacoolam (Ánaikkulam, *Tam.*)	291	0	0
Vellaulacoolam (Vellálangulam, *Tam.*)	429	4	0
Eechandah (Íççandá, *Tam.*)	557	8	0
Nullamoottanputty (Nallamuttanbatti, *Tam.*)	519	9	0
Oovayanaickanputty (Óvayanáyakkanbatti, *Tam.*)	727	13	0
Yelayirampunnay (Ézháyirambannai, *Tam.*) $\frac{1}{4}$th	1,255	12	9
Do. (do.) $\frac{1}{3}$rd	1,255	12	10
Do. (do.) $\frac{3}{4}$th	941	13	8
Do. (do.) $\frac{5}{16}$th	392	7	0
Do. (do.) $\frac{5}{16}$th	392	7	0
Do. (do.) $\frac{5}{16}$th	392	7	0
Do. (do.) $\frac{5}{16}$th	392	7	0
Nagalaupooram (Nágaláppuram, *Tam.* Nágalápuram *)	6,445	5	8
Poothoor (Pudúr,* *Tam.*)	6,414	6	10
Vaudy Mittah (Vádimittá, *Tam.* Vádimitta *)	5,440	5	11
Sevvalputty (Shevvalbatti, *Tam.* Sevalpati *)	6,122	8	5
Velayoothapooram (Véláyuthappuram, *Tam.*)	469	9	7
Panayoor (Panaiyúr, *Tam.*)	1,399	13	5

TRICHINOPOLY DISTRICT.

	RS.	A.	P.
Oodayarpolliem (Udaiyárppálaiyam, *Tam.* Udayárpálaiyam *)	642	15	4
Toorayore (Turaiyúr,* *Tam.*)	700	0	0
Maroongapoory (Marungáppuri, *Tam.* Marungápuri *)	20,586	15	6
Cadavoor (Kadavúr,* *Tam.*)	13,410	10	6
Cauttoopoottore (Káttupputtúr, *Tam.* Kátuputúr *)	15,901	7	11
Ariyaloor (Ariyalúr,* *Tam.*)	1,092	8	4

VIZAGAPATAM DISTRICT.

Ancient and Hill Zemindarries.

	RS.	A.	P.
Vizianagram * (Vijayanagaramu, *Tel.*)	4,96,180	1	0
Bobbily (Bobbili, * *Tel.*)	89,774	9	3
Saulore (Sálúru, *Tel.* Sálúr *)	35,985	0	5
Madgole (Mádugula,* *Tel.*)	30,099	8	8
Merangy (Mérangi, *Tel.* Merangi *)	18,479	10	8
Jeypore * (Jayapuramu, *Tel.*)	16,000	0	0
Cooroopaum (Kurupámu, *Tel.* Kurupám*)	14,370	4	0
Belgaum (Belagámu, *Tel.* Belgám *)	10,364	12	1
Sungamvalasa (Sangamvalasa,* *Tel.*)	6,700	0	0
Chemoodoo (Chemudu,* *Tel.*)	4,655	15	5
Pachipenta (Páchipenta, *Tel.*)	2,696	5	3
Andhra (Ándhra, *San.*)	1,386	10	8
Saripully Bheemavaram (Saripalle, Bhímavaramu, *Tel.*)	400	0	0
Causipore (Kásipuramu, *Tel.*)	600	0	0

Proprietary Estates.

	RS.	A.	P.
Ankapully (Anakápalle,* *Tel.*)	29,958	15	5
Goodicherla (Gudicherla,* *Tel.*)	17,254	2	0
Corprole (Koruprólu, *Tel.*)	8,041	14	4
Bharanicam (Bharanikamu, *Tel.*)	1,566	8	0
Moonagapauca (Munagapáka, *Tel.*)	24,636	6	0
Shreerampooram (Shrírámapuramu, *Tel.*).	17,907	15	7
Cassimcote (Kashimkóta, *Tel.* Kasimkót *).	13,901	9	0
Mailpauka (Mélupákamu, *Tel.* Melupáka *)	19,442	14	5
Ooratla (Uratla,* *Tel.*)	15,236	15	2
Condala Agrahauram (Kondala Agraháramu, *Tel.*)	767	3	4
Shermahomedpooram (Shérumahammadupuramu, *Tel.* Shermuhammadpuram *)	19,325	0	11
Naccapilly (Nakkapilli,* *Tel.*)	5,408	15	11
Cooppily (Kuppili,* *Tel.*)	8,429	1	9
Shiripooram (Shiripuramu, *Tel.*)	8,800	6	11
Oongarauda (Ungaráda,* *Tel.*)	3,080	0	0
Kintaly (Kintali,* *Tel.*)	7,349	5	6
Mantina (*Tel.*)	7,220	10	8
Chidicauda (Chídikáda, *Tel.*)	1,750	0	0
Juggannadapuram (Jagannádha puramu, *Tel.*)	3,104	14	2
Waltair * (Váltéru, *Tel.*)	4,433	5	5
Pedda Goommooloor (Pedda Gummulúru, *Tel.*)	3,761	5	5
Cheepoorpully (Chípurupalle,* *Tel.*)	3,824	6	3
Eedoolapauca Bonangy (Ídulapáka Bónangi, *Tel.*)	2,056	8	0
Appicondah (Appikonda, *Tel.*)	601	4	10
Siddeshwaram (Siddhéshvaramu, *Tel.*)	731	0	0
Rauvauda (Ráváda, *Tel.*)	3,751	10	2
Coorauda Condayavalsa (Kúráda Kondayyavalasa, *Tel.*)	681	0	0
Maumidivauda (Mámidiváda, *Tel.*)	1,793	2	8
Currivalsa (Karrivalasa, *Tel.*)	111	7	3
Cotikapenta (Kotikapenta, *Tel.*)	154	14	6
Totavalsa (Tótavalasa, *Tel.*)	37	5	0
Pandoor Mallavaram (Pandúru Mallavaramu)	1,608	14	11
Sowdvauda (Tsauduváda, *Tel.*)	952	14	5
Bayyavaram (Bayyavaramu, *Tel.*)	851	12	6
Tungaid and Gotivauda (Tangédu and Gotiváda, *Tel.*)	921	2	7
Poolleta and Maumidipully (Pulleta and Mámidipalle, *Tel.*)	1,818	1	1
Cottooparoovoo (Kottuparuvu, *Tel.*)	344	0	7

APPENDIX No. XLVIII.

LIST OF THE REGULATIONS OF THE GOVERNOR OF FORT ST. GEORGE IN COUNCIL, WITH PARTICULARS AS TO THEIR SUBSEQUENT REPEAL.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1802	I	Formation of Regulations into Code	Rep., Mad. Act II of 1869.
	II	Jurisdiction of Civil Courts	Rep., III of 1873.
	III	Rules of Practice for Zillah Courts	Rep. in part, X of 1861; XVII of 1862; III of 1873; XVI of 1874; XII of 1876; Mad. Act V of 1867; Mad. Act II of 1869.
	IV	Rules of Practice for Provincial Courts ...	Rep. in part, X of 1861. Residue rep., XVII of 1862.
	V	Rules of Practice for Sudder Adawlut	Rep. in part, X of 1861; Reg. IV of 1806; Reg. XV of 1816, s. 5; Reg. VIII of 1818; Mad. Act II of 1869.
	VI	Rules for guidance of Magistrates	Rep., Reg. IX of 1816.
	VII	Courts of Circuit	Rep., XVII of 1862.
	VIII	Fowjdarry Adawlut	Rep., Mad. Act II of 1869.
	IX	Power to propose Regulations	Rep., Reg. VIII of 1819.
	X	Vakeels	Rep., Reg. XIV of 1816.
	XI	Native Law Officers	Rep., XI of 1864.
	XII	Ministerial Officers	Rep., III of 1873.
	XIII	Records of Courts	Rep. in part, XII of 1876; Reg. XV of 1816, s. 15; Reg. VII of 1822; Reg. IX of 1828; Mad. Act II of 1869.
	XIV	Pauper Suitors	Rep., Reg. VII of 1818.
	XV	Judges of Provincial Courts	Rep., Mad. Act II of 1869.
	XVI	Trial of Petty Suits	Rep., Reg. VI of 1816.
	XVII	Registry for Wills and Deeds	Rep., XVI of 1864.
	XVIII	British Subjects	Rep., Mad. Act II of 1869.
	XIX	Prohibition of Loans by Covenanted Civil Servants	Rep. in part, Mad. Act II of 1869.
	XX	Trials for Treason	Rep., Mad. Act II of 1869.
	XXI	Reference to Arbitration	Rep., X of 1861.
	XXII	Construction of Regulations	Rep., Mad. Act II of 1869.
	XXIII	Revenue Records	Rep., Mad. Act II of 1869.
	XXIV	Jurisdictions of Courts	Rep., Mad. Act II of 1869.
	XXV	Revenue Settlement	Rep. in part, Mad. Act II of 1869.
	XXVI	Malgoozarry lands	Rep. in part, Mad. Act II of 1864, s. 65.
	XXVII	Recovery of arrears of Revenue	Rep. in part, Mad. Act II of 1864, s. 65.
	XXVIII	Distress	Rep., Mad. Act VIII of 1865, s. 89.
	XXIX	Office of Curnum	Rep. in part, XII of 1876; locally, Reg. II of 1806, s. 7.
	XXX	Use of puttahs	Rep., Mad. Act VIII of 1865, s. 89.
	XXXI	Titles to non-badshahy lands	Rep., Mad. Act II of 1869.
	XXXII	Affrays respecting boundaries	Rep., Reg. V of 1822, s. 10.
	XXXIII	Embezzlement of public money	Rep., Reg. IX of 1822, s. 19.
	XXXIV	Interest	Rep., Mad. Act II of 1869.
	XXXV	Police, Caroongooly	Rep., Reg. XI of 1816.
	XXXVI	Court of Adawlut, Caroongooly	Rep., Mad. Act II of 1869.
1803	I	Board of Revenue	Rep. in part, XXIII of 1871; X of 1873; Reg. II of 1806; Reg. V of 1828; Reg. III of 1830; Mad. Act II of 1894, s. 62; Mad. Act II of 1869. Vide Mad. Act II of 1883.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1803	II	Collectors	Rep. in part, XXIII of 1871; XII of 1873; XII of 1876; Reg. II of 1806; Mad. Act II of 1864, s. 62; Mad. Act VI of 1865; Mad. Act II of 1869.
	III	Certain Courts, Northern Circars	Rep., Mad. Act II of 1869.
	IV	Fowjdarry Adawlut, Malabar	Rep., Reg. IV of 1804.
	V	Removal of Appeal Court from Madura ...	Rep., Mad. Act II of 1869.
	VI	Zillah Court, Chingleput	Rep., Reg. X of 1808.
	VII	Zillah Court, Ramnaud	Rep., Reg. XI of 1808, s. 9.
	VIII	Certain Poligars' Debts	Rep., Mad. Act II of 1869.
	IX	Duties, Madras Port	Rep., XII of 1876.
	X	Imports by land into Madras Town	Rep., Mad. Act II of 1869.
	XI	Imports and exports by sea	Rep., VI of 1844.
	XII	Duties	Rep., Reg. I of 1812.
	* XIV	Zemindarry of Ooppada	Rep., Mad. Act II of 1869.
	XV	Criminal Law	Rep., XVII of 1862.
	XVI	Suspension of Customs Regulations	Rep., Reg. II of 1812, s. 18.
1804	I	Duty on Betel and Tobacco	Rep., Reg. III of 1812, s. 9.
	II	Registrars to Collectors	
	III	Toomidy Estate	Rep., Mad. Act II of 1869.
	IV	Zillah of Salem	
	V	Court of Wards	Rep. in part, XXXV of 1858; XII of 1876; Mad. Act II of 1869.
1805	I	Salt	Rep. in part, VI of 1844, s. 42; XII of 1876; Reg. II of 1818; Reg. V of 1831; Mad. Act II of 1869. Modified, XVII of 1840. Rep. locally (as to districts to which this Act may be extended), Mad. Act VI of 1871. Rep. in part, Mad. Act I of 1882.
1806	I	Commercial Residents and Agent	Rep., Mad. Act II of 1869.
	II	Courts of Adawlut: Collectors: Curnums ...	Rep. in part, XII of 1876; Mad. Act VIII of 1865, s. 89; Mad. Act II of 1869.
	III	Paymaster of certain Stipends: Vellore Police ...	Rep., Reg. XVI of 1808.
	IV	Administration of Justice	Rep., Mad. Act II of 1869.
	V	Courts of Appeal, Arnee	
	VI	Vacations: Jail-deliveries	Rep., Reg. III of 1816.
	VII	Village of Cottapully	
1807	I	Chief Judge of Courts of Sudder and Fowjdarry Adawlut	Rep., Mad. Act II of 1869.
	II	Salt	Rep., Mad. Act I of 1882.
	III	Judges of Courts of Sudder & Fowjdarry Adawlut.	Rep., Mad. Act II of 1869.
1808	I	Manufacture and sale of Spirit	Rep., Reg. I of 1820.
	II	Court at Seringapatam	Rep., Mad. Act II of 1869.
	III	Cauzee-ool-coozaut	Rep., XI of 1864.
	IV	Stamp Duties on Pleadings, &c. ...	Rep., Reg. XIII of 1816; Reg. II of 1817.
	V	Fees on institution of Suits	
	VI	Circuits: Courts of Fowjdarry and Sudder Adawlut.	Rep., Mad. Act II of 1869.
	VII	Power to establish Martial law	Rep. in part, XII of 1876; Mad. Act II of 1869.
	VIII	Stamp Duties	Rep., Reg. XIII of 1816; Reg. II of 1817.
	IX	Zillah Courts, Northern Division	
	X	Zillah Courts, Central Division	
	XI	Zillah Courts, Southern Division	Rep., Mad. Act II of 1869.
	XII	Zillah Courts, Western Division	
	XIII	Courts of Appeal and Circuit	
	XIV	Duty on Grain, Madras Port	Rep., VI of 1844.
	XV	Board of Trade	Rep., Mad. Act II of 1869.
	XVI	Rescinding Regulation III of 1806 ...	
	XVII	Fees on institution of Suits	Rep., Reg. XIII of 1816; Reg. II of 1817.
1809	I	Native Officers	Rep., Reg. VII of 1822.
	II	Criminal cases, Seringapatam	Rep., Mad. Act II of 1869.
	III	Complaints against European Officers	Rep., XIII of 1843.
	IV	Amending Regulations III and VI of 1802 ...	Rep., Mad. Act II of 1869.
	V	Duty on Betel-nut	Rep., Reg. II of 1812, s. 5.
	VI	Police of Cantonments	Rep., Reg. VI of 1821; VII of 1832.
	VII	Assistant Judges: Registrars: Limitation: Native Commissioners	Rep., X of 1861.

* There is no Regulation No. XIII of 1803 in the Madras Code.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1809	VIII	Provincial Courts of Appeal: Oaths ...	Rep., Mad. Act II of 1869.
	IX	District of Oossoor	
	X	Native Commissioners	Rep., Reg. VIII of 1816.
	XI	Trial of certain Native criminals	Rep., Reg. II of 1829.
	XII	Civil Appeals: Execution of Decrees	Rep., X of 1861.
	XIII	Dacoits	Rep., Reg. IX of 1816.
	XIV	Saltpetre	Rep., Reg. V of 1821, s. 6.
1810	I	Criminal Procedure	Rep., XVII of 1862.
	II	Charges against European Public Officers ...	Rep., XIII of 1843; Reg. VIII of 1822.
	III	March of Troops	Rep., Reg. VI of 1821; Reg. VII of 1832.
1811	I	Jail Delivery in certain zillahs	Rep., Mad. Act II of 1869.
	II	Process of Civil Courts	Rep., X of 1861.
	III	Commercial Residents	Rep., Mad. Act II of 1869.
	IV	Criminal Procedure	Rep., Reg. IX of 1816.
	V	Native Officers	Rep., Reg. VII of 1822.
	VI	Punishment of Perjury and Forgery	Rep., XVII of 1862.
	VII	Tobacco Revenue	Rep., IV of 1853.
	VIII	Tobacco Monopoly, Coimbatore	
1812	I	Inland Duties	Rep., Mad. Act II of 1869.
	II	Duties at Ports	
	III	Duties on Imports by Land: Madras Town	Rep., Mad. Act II of 1869.
	IV	Foreign Trade	
	V	Court and Magistrate, Cochin	Rep., Reg. IV of 1817.
	VI	Duty on Betel, &c.	Rep., Mad. Act II of 1869.
1813	I	Duty on Spirit	Rep., XIX of 1852.
	II	Stamp Duties	Rep., Reg. XIII of 1816.
1814	I	Zillah Court, Goontoor	Rep., Reg. V of 1818.
1816	I	Police, Tanjore	Rep. in part, XVIII of 1861.
	II	Collection of Customs	Rep., VI of 1844.
	III	Adjournment of Courts	Rep., III of 1873.
	IV	Village Moonsifs	Rep. in part, XXVIII of 1855; VII of 1870; XII of 1876; Reg. IX of 1828; Mad. Act II of 1869. Amended by Mad. Act IV of 1883.
	V	Village Punchayets	Rep. in part, XXVIII of 1855; VII of 1870; XII of 1876; Reg. IX of 1828.
	VI	Native Commissioners	Rep., III of 1873.
	VII	District Punchayets	
	VIII	Sudder Ameens	Rep., Mad. Act II of 1869.
	IX	Zillah Magistrate	Rep., XVI of 1874.
	X	Criminal Judges of Zillahs	Rep., Mad. Act II of 1869.
	XI	Police	Rep. in part, XVII of 1862; XII of 1876. Reg. IX of 1828.
	XII	Disputed Boundaries: Punchayets	Rep. in part, VII of 1870, sch. 3; XII of 1876; Mad. Act II of 1869.
	XIII	Stamps	Rep., XXXVI of 1860.
	XIV	Vakeels	Rep. in part, I of 1846; X of 1861; VII of 1870; X of 1873; XII of 1876; X of 1877; Mad. Act II of 1867; Mad. Act II of 1869; Residue repd. Mad. Act II of 1882.
	XV	Civil Jurisdiction and Procedure	Rep., Mad. Act II of 1869.
1817	I	Modifying Reg. IV of 1812	Rep., Reg. VI of 1819.
	II	Stamp Duties	Rep., Mad. Act II of 1869.
	III	Criminal Judges	
	IV	Rescinding Reg. V of 1812	
	V	Native Law Officers	Rep., XXVII of 1836.
	VI	Stamps	Rep., Mad. Act II of 1869.
	VII	Charitable Endowments ... ... Bridges: Escheats	Rep. in part, XX of 1863.
	VIII	Civil Suits to which Sepoys are parties: Registration of Sepoy Malgoozars.	Rep. in part, X of 1861; XII of 1876.
1818	I	Criminal Procedure	Rep., XVII of 1862.
	II	Import Duty on Salt	Rep., Mad. Act II of 1869.
	III	Import Duty on Opium	Rep., VI of 1844.
	IV	Tax upon Trade Profits, Ceded Districts ...	Rep., XVIII of 1861.
	V	Rescinding Reg. I of 1814	Rep., Mad. Act II of 1869.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1818	VI	Commissions to inquire into conduct of Government Servants.	Rep., XIII of 1843.
	VII	Pauper Suits	Rep., X of 1861.
	VIII	Appeals to Privy Council	Rep., VI of 1874.
	IX	Assistant Magistrates	Rep., Mad. Act II of 1869.
1819	I	Assessment of Land Revenue	Rep., Mad Act I of 1876.
	II	State Prisoners	Rep. in part, XVI of 1874; XII of 1876.
	III	Extortion by Police	Rep., XVII of 1862.
	IV	Duty on goods exported or imported by sea from certain European settlements.	Rep., VI of 1844.
	V	Attesting Confessions	Rep., XVII of 1862.
	VI	Foreign Trade	Rep., Mad. Act II of 1869.
	VII	Collection of Customs	Rep., VI of 1844.
	VIII	Rescinding Regulation IX of 1802	Rep., Mad. Act II of 1869.
1820	I	Manufacture and sale of Spirits	Rep., Mad. Act III of 1864.
	II	Publishing 53 Geo. III, c. 155, ss. 105-113 ...	Rep., XII of 1873.
	III	Storing Tobacco	Rep., Mad. Act II of 1869.
1821	I	Provincial and Zillah Courts	Rep., Mad. Act II of 1869.
	II	Registers, Sudder Ameens and District Moonsifs.	Rep., III of 1873.
	III	Duty on Opium	Rep., Mad. Act. II of 1869.
	IV	Police: Punishment by Heads of Villages of petty thefts.	Rep. in part, XVII of 1862; XII of 1876.
	V	Leases of Inland Duties	Rep., Mad. Act II of 1869.
	VI	Military Bazaars	Rep., Reg. VII of 1832.
1822	I	Robbery	Rep., Reg. I of 1825.
	II	Criminal Procedure	Rep., XVII of 1862.
	III	Extending Regulation VII of 1818	Rep., X of 1861.
	IV	Rights of Cultivators.	
	V	Jurisdiction of Collectors	Rep., Mad. Act VIII of 1865; s. 89.
	VI	Criminal Jurisdiction	Rep., XVII of 1862.
	VII	Appointment and removal of Native officers ...	Rep. in part, XI of 1864; XVI of 1874; Mad. Act II of 1869.
	VIII	Investigation of conduct of Public officers ...	Rep., XIII of 1843.
	IX	Malversation: Collectors: Embezzlement: Appeals.	Rep. in part, XII of 1876; Reg. III of 1823; Reg. VII of 1828; s. 5; Mad. Act II of 1869.
1823	I	Suits against Government officers ...	Rep., X of 1861.
	II	Special Appeals	Rep., X of 1861.
	III	Judgments under Regulation IX of 1822, s. 4: Powers of Subordinate Collectors.	Rep. in part, XII of 1876; Reg. VII of 1828; Mad. Act II of 1869.
1824	I	Witnesses in Criminal Courts	Rep., XVII of 1862.
1825	I	Criminal Procedure	Rep., XVII of 1862.
	II	Stamps	Rep. in part, Mad. Act II of 1869; Residue rep., VII of 1870.
	III	Appeals: Appellate Judges	Rep., Mad. Act II of 1869.
	IV	Pauper Suits	Rep., X of 1861.
	V	Appeals from certain decisions in Land Suits ...	Rep., Mad. Act II of 1869.
1826	I	Recovery of Revenue	Rep., Mad. Act VIII of 1865, s. 89.
	II	Rescinding Regulation II, 1812, s. 18, c. 14 ...	Rep., Mad. Act II of 1869.
	III	Perjury	Rep., XVII of 1862.
1827	I	Auxiliary Zillah Courts	Rep., Mad. Act II of 1869.
	II	Joint Criminal Judges: Subordinate Collectors.	Rep., X of 1872.
	III	Power to fix Court in which prisoner shall be tried.	Rep., XVII of 1862.
	IV	Use of spirits by European troops	Rep., VII of 1832.
	V	Articles of War for Native Army	Rep., Mad. Act II of 1869.
	VI	Criminal Law	Rep., XVII of 1862.
	VII	Native Judges	Rep., III of 1873.
	VIII	Criminal jurisdiction of Native Judges	Rep., X of 1872.
	IX	Seringapatam	Rep., Mad. Act II of 1869.
	X	Trial by Jury	Rep., XVII of 1862.
	XI	Special Appeals: Sudder Ameen...	Rep., X of 1861.
1828	I	Sentences of Native Courts-martial	Rep., Mad. Act II of 1869.
	II	District Moonsifs	Rep., III of 1873.
	III	Native Laws	Rep., XI of 1864.
	IV	Payment to Translators of judicial proceedings.	Rep., Mad. Act II of 1869.
	V	Power to suspend Judges and Collectors ...	Rep., Mad. Act II of 1869.
	VI	Appeals: Pleaders' fees	Rep., X of 1861.
	VII	Subordinate and Assistant Collectors	Rep. in part, XII of 1876; Mad. Act II of 1869.
	VIII	Corporal Punishment	Rep., XVII of 1862.
	IX	Periodical Statements of Courts	Rep., XVII of 1862.
1829	I	Trial of Appeals	Rep., III of 1873.
	II	Offences of Natives abroad	Rep., I of 1849.
	III	Articles of War, Native Army	Rep., Mad. Act II of 1869.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1829	IV	Sunnuds, Noozveed and Ellore	Rep., XII of 1835.
	V	Hindoo Wills	Rep. in part, XII of 1876; Mad. Act II of 1869.
	VI	Modifying Reg. I, 1825, s. 8	Rep., XVII of 1862.
	VII	Rents of Customs	Rep., Mad. Act II of 1869.
	VIII	Theft of Judicial Records: Perjury	Rep., XVII of 1862.
1830	I	Suttee	Rep. in part, XII of 1876.
	II	Corporal Punishment	Rep., XVII of 1862.
	III	Sales of land for Revenue Arrears	Rep., Mad. Act II of 1864, s. 65.
	IV	Suspending Regulation IV, 1829	Rep., XII of 1835.
1831	I	Heath's iron works	Rep., Mad. Act II of 1869.
	II	Criminal Procedure ... ... }	Rep., XVII of 1862.
	III	Unlawful Assemblies ... ... }	
	IV	Grants of Money or Land Revenue	Rep., XXIII of 1871.
	V	Salt, Tobacco, and Stamps	Rep. in part, Mad. Act II of 1869.
	VI	Hereditary Offices	Rep. in part, XXIV of 1859; XII of 1876.
	VII	Foreign Trade	Rep. in part, Mad. Act II of 1869.
	VIII	Appeals ... ... }	Rep., Mad. Act II of 1869.
	IX	Smuggling Tobacco ... ... }	
	X	Minors' Estates	Rep. in part, XII of 1876.
	XI	Registrar of Deeds	Rep., XVI of 1864.
1832	I	False allegations in petitions	Rep., X of 1861.
	II	Rescinding Regulation X, 1803, s. 23, cl. 1 ...	Rep., Mad. Act II of 1869.
	III	Limitation.	
	IV	Sudder Ameens: Purchase of Land at public sales.	Rep., Mad. Act II of 1869.
	V	Moturpha tax	Rep., XVIII of 1861.
	VI	Explaining Regulation XXVI, 1802, s. 20 ...	Rep., Mad. Act II of 1864, s. 65.
	VII	Military Bazaars: Courts-martial	Rep., XVI of 1874.
	VIII	Rescinding Regulation IV, 1821, s. 7, cl. 2 and s. 8. }	Rep., XVII of 1862.
	IX	False accusations to Police ... ... }	
	X	Gaols	Rep., Mad. Act V of 1869.
	XI	Hidden treasure	Rep., VI of 1878.
	XII	Crimes committed abroad	Rep., I of 1849.
	XIII	Criminal Procedure	Rep., XVII of 1862.
	XIV	Purchasing from Soldiers	Rep. in part, XII of 1876.
1833	I	Punishment of Convicts	Rep., Mad. Act V of 1869.
	II	Corporal punishments	Rep., XVII of 1862.
	III	Jurisdiction of Sudder Ameens and District Moonsifs.	Rep., III of 1873.
	IV	Carnatic Commissioner	Rep., Mad. Act II of 1869.
1834	I	Treason and Rebellion	Rep., XVII of 1862.
	II	District Moonsifs	Rep., Mad. Act II of 1869.

APPENDIX No. XLIX.

CHRONOLOGICAL LIST OF ACTS OF THE GOVERNOR OF FORT ST. GEORGE IN COUNCIL REVISED DOWN TO THE END OF 1884.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
1862	I	Port-dues, Ganjam	Rep., Mad. Act VII of 1867.
	II	Extending Act XXV of 1859	Rep., VIII of 1876.
	III	Police, Madras Town.	
	IV	Enfranchised Inams.	
	V	Bank of Madras	Rep., Mad. Act VI of 1866.
1863	I	Subordinate Magistrates, second class	Rep., Mad. Act IV of 1867.
	II	Extending Act XXII of 1855	Rep., Mad. Act I of 1864.
	III	Service of Process under Act XIII of 1859 ...	Rep., Mad. Act II of 1880.
	IV	Small Cause Jurisdiction	Rep., III of 1873.
	V	Madras Pier	Rep. in part, XII of 1873. Amended by Mad. Act VII of 1871.
	VI	Schools in Godavery District	Rep. in part, XII of 1873; locally, Mad. Act III of 1871; Mad. Act IV of 1871.
1864	I	Repealing Madras Act II of 1863	Rep., XII of 1875.
	II	Recovery of arrears of Revenue	Rep. in part, XII of 1873. Amended by Mad. Act III of 1884.
	III	Abkarry	Rep. in part, Mad. Act V of 1879.
	IV	Cess in lieu of Village fees.	
1865	I	Alteration of stations of Zillah Courts and limits of Districts.	Rep. in part, III of 1873.
	II	Repealing VII of 1843, ss. 48, 49	Rep., Mad. Act II of 1869.
	III	Offences against Special and Local Laws ...	Rep., XVI of 1874.
	IV	Cantonments	Rep., Mad. Act I of 1866.
	V	Amending Act XXIV of 1859.	
	VI	Official Seals	Rep. in part, XII of 1873.
	VII	Cess for Irrigation-water.	
	VIII	Recovery of rent	Rep. in part, VII of 1870; XII of 1873; Mad. Act II of 1871.
	IX	Madras Municipality	Rep., Mad. Act IX of 1867.
	X	Mofussil Municipalities	Rep. locally, Mad. Act III of 1871.
1866	I	Cantonments.	
	II	Cattle disease	Amended by Mad. Act I of 1879.
	III	District Road Cess	Rep. locally, Mad. Act III of 1871.
	IV	Exempting Service Inams from Regulation VI of 1831.	
	V	Labour-contracts with Natives	Rep. in part, III of 1876.
	VI	Bank of Madras	Rep., XI of 1876.
1867	I	General Clauses Act	Rep. in part, XVI of 1874.
	II	Repealing Regulation XIV, 1816, s. 37	Rep., Mad. Act II of 1869.
	III	Claims against Azeem Jah	Rep., XVI of 1874.
	IV	Repealing Madras Act I of 1863	Rep., Mad. Act II of 1869.
	V	Repealing Enactments as to Native Law Officers.	Rep., Mad. Act II of 1869.
	VI	Land-revenue, Madras Town	Rep. in part, XII of 1873.
	VII	Port-dues	Rep., XII of 1875.
	VIII	Police, Madras Town	Rep. in part, XVI of 1874; XII of 1875; IV of 1877; X of 1881; X of 1882; Mad. Act V of 1869. Amended by Mad. Act IV of 1879.
	IX	Municipality, Madras Town	Rep., Mad. Act V of 1878.
1868	I	Commissioner, Neilgherry Hills	Rep. in part, III of 1873, s. 29; XII of 1873; Repd. wholly by Mad. Act II of 1881.
	II	Tolls on Roads and Bridges	Rep. locally, Mad. Act IV of 1871, s. 2.
1869	I	Commissioner, Neilgherry Hills	Rep., XVI of 1874.
	II	Repealing Act	Rep., XII of 1873.
	III	Empowering Revenue Officers to summon witnesses.	
	IV	Boats, Madras Roads.	
	V	Jails	Rep. in part, XII of 1873. Amended by Mad. Act VII of 1882.

Year.	Number.	Subject-matter.	How repealed or otherwise determined.
	VI	Madras Equitable Assurance Society.	
	VII	Continuing Act XX of 1859.	
	VIII	Inam deeds.	
1870	I	Canal Tolls and Ferries	Rep. in part, Mad. Act IV of 1878.
1871	I	Bank of Madras	Rep., XI of 1876.
	II	Explaining Madras Act VIII of 1865, s. 11, cl. 4.	
	III	Improvement of Towns	Ceased to be in force in municipalities where Mad. Act IV of 1884 has been extended.
	IV	Local Funds	Rep. in part, Mad. Act I of 1878. Ceased to be in force in municipalities where Mad. Act. IV of 1884 has been extended.
	V	Amending Madras Act IX of 1867	Rep., Mad. Act V of 1878.
	VI	Excise Duty on Salt	Rep. in part, Mad. Act I of 1882.
	VII	Madras Pier.	
1872	I	Police.	
	II	Port Rules.	
1873	I	Wild Elephants.	
	II	Boats, Madras Roads.	
1876	I	Assessment of Land Revenue.	
1877	I	Amending Act IV of 1842.	
1878	I	Levy of Funds in Malabar.	
	II	Earth-salt	Rep., Mad. Act I of 1882.
	III	License-tax	Rep. in part, VI of 1880. Amended, Mad. Act III of 1880.
	IV	Amending Mad. Act I of 1870.	
	V	Madras City Municipal Act	Rep. in part, Mad. Act VI of 1879. Amended, Mad. Act III of 1881. Rep., Mad. Act I of 1884.
	VI	Commissioner of Salt Revenue.	
	VII	Cost of Police.	
	VIII	Coffee-stealing.	
1879	I	Amending Mad. Act II of 1866.	
	II	Neilgherry Game Law.	
	III	Hackney Carriages.	
	IV	Amending Mad. Act VIII of 1867.	
	V	Abkarry Laws Amendment.	
	VI	Amending Mad. Act V of 1878	Rep. by Mad. Act I of 1884.
1880	I	Gunpowder.	
	II	Repealing Mad. Act III of 1863.	
	III	Amending schedule of Mad. Act III of 1878.	
1881	I	Madras Ports Police Act.	
	II	To repeal Mad. Act I of 1868.	
	III	Amending Mad. Act V of 1878	Rep. by Mad. Act I of 1884.
1882	I	Salt Laws Amendment	Amended, Mad. Act IV of 1882.
	II	Repealing Mad. Reg. XIV of 1816.	
	III	Providing for occasional increase to Police Force.	
	IV	Amending Mad. Act I of 1882.	
	V	Madras Forests Act, 1882.	
	VI	Madras Harbour Dues.	
	VII	Madras Jails Amendment Act.	
1883	I	Madras Village Cess Act Extension Act.	
	II	Madras Revenue Board Act.	
	III	Cocanada Port Dues Act.	
	IV	Village Moonsifs' Jurisdiction Act.	
1884	I	Madras City Municipality Act	Amended, Mad. Act VII of 1884.
	II	Boundary Marks, Madras.	
	III	Revenue Recovery Act Amendment Act.	
	IV	Madras District Municipalities Act.	
	V	Madras Local Boards Act.	
	VI	Madras Rivers Conservancy Act.	
	VII	Amending Madras Act I of 1884.	

APPENDIX No. L.

STATEMENT OF BILLS INTRODUCED INTO THE MADRAS LEGISLATIVE COUNCIL AND SUBSEQUENTLY WITHDRAWN FROM 1862 TO 1884.

Number and year.	Title of Bill.	When introduced.	When withdrawn and why.
8 of 1862 ..	A Bill for amending and codifying the laws which relate to the recovery of revenue and define the powers and duties of servants of Government entrusted with the realization of land revenue.	Introduced and referred to a select committee on the 6th May 1862.	This Bill was withdrawn in consequence of the large variety of subjects embraced in it, and for other causes which were found to create difficulty; but portions of it were introduced in separate Bills and passed as Acts II of 1864 and VIII of 1865.
9 of 1862 ..	A Bill for organizing a popular form of Municipal Corporation in lieu of the present Municipal Board for the Town of Madras.	Do. do. ..	In accordance with the recommendation of the select committee, it was ordered that this Bill should remain in abeyance; it was subsequently superseded by Act IX of 1865.
10 of 1862 ..	A Bill to make better provision for the protection and due appropriation for the purposes for which they were made of all Hindoo and Mahomedan religious endowments.	Introduced on the 20th December 1862.	First reading postponed till the sanction of the Governor-General for taking the Bill into consideration had been received under the provisions of section 43 of the Indian Councils Act.
2 of 1863 ..	A Bill to consolidate and amend the law relating to the office and duties of Administrator-General in the Presidency of Fort St. George.	Introduced on the 31st January 1863.	As the opinion of the Council was against its first reading, this Bill was not proceeded with.
4 of 1863 ..	A Bill to declare more precisely the legal efficacy of wills among Hindoos, and to legalize the alienations of self-acquired property of Hindoos in lands.	Introduced and referred to a select committee on the 28th February 1863.	Owing to the death of the proposer, V. Sadagopah Charloo, the Bill was ordered to lie over till the appointment of another Hindoo Member. G. Lutchminarasoo Chetty took charge of the Bill on the 9th April 1864, and a select committee was appointed on the same date, but no further action was taken. This Bill has been superseded by Act 21 of 1870 (Hindoo Wills Act).
4 of 1864 ..	A Bill for the prevention of gambling in the Presidency of Madras.	Introduced and referred to a select committee on the 25th June 1864.	As some of the Members were opposed to the Bill, its withdrawal was ordered.
9 of 1865 ..	A Bill to make provision for improving the sanitary condition of places in the immediate vicinity of railway stations.	Introduced and referred to a select committee on the 9th August 1865 and 10th March 1866.	As the Criminal Procedure Code contained provisions empowering Magistrates to deal with complaints regarding the insanitary condition of village sites near Railway stations, the Council were of opinion that special legislation on the subject was inexpedient.
10 of 1865 ..	A Bill to make landholders in certain localities to make provision for the construction, repair, and maintenance of cross-roads in the district in which their lands are situated.	Introduced and referred to a select committee on the 12th August 1865.	The select committee recommended that the Bill should not be proceeded with and that another Bill should be introduced in order to meet the wishes of the Wynaud Planters. Accordingly a Bill was introduced and passed as Act II of 1868.

Number and year.	Title of Bill.	When introduced.	When withdrawn and why.
6 of 1869 ..	A Bill to consolidate and amend the law relating to District Moonsifs.	Introduced and referred to a select committee on the 9th November 1869.	This Bill was withdrawn on the ground that a complete consolidation of the laws relating to District Moonsifs was beyond the jurisdiction of the local legislature. The Bill was submitted to the Government of India for the purpose of being passed by the Governor-General's Council, and passed as India Act III of 1873.
2 of 1871 ..	A Bill to reduce the duty on salt imported by sea into the Madras Presidency.	Introduced on the 7th January 1871.	Withdrawn in consequence of the passing of the Indian Tariff Act XIII of 1871, where the same rate of import duty on salt was fixed as that proposed by the Bill (viz., Rupees 1-13-0).
3 of 1873 ..	A Bill to provide for trustees for the Port of Madras.	Published under Rule 25 on the 16th December 1873.	Superseded by Bill No. III of 1881 (Harbour Trust Bill).
1 of 1875 ..	A Bill to amend the law relating to the Court of Wards.	Introduced and referred to a select committee on the 23rd February 1875.	Disposed of under Rule 51A, under which Bills are removed from the list of business in the absence of a motion regarding them for two years.
3 of 1875 ..	A Bill to amend the Madras Local Fund Act IV of 1871.	Do. do. ..	Do. do.
4 of 1875 ..	A Bill to regulate the manufacture and sale of intoxicating drugs and preparations within the Presidency of Madras.	Introduced and referred to a select committee on the 17th June 1875.	Disposed of under Rule 51A.
5 of 1875 ..	A Bill to incorporate the Madras Widows' and Orphans' Fund.	Introduced and referred to a select committee on the 16th November 1875.	Consideration postponed.
2 of 1878 ..	A Bill to provide for the punishment of breaches of contract and other misconduct between domestic and other servants and their employers.	Published in the Fort St. George Gazette on the 23rd January 1878.	Disposed of under Rule 51A.
5 of 1878 ..	A Bill to provide further means for carrying out the objects of the City of Madras Municipal Act, 1878.	Introduced and referred to a select committee on the 13th February 1878.	Consideration postponed.
2 of 1883 ..	A Bill for the regulation and enforcement of coodimaramat or unpaid village labor in the Presidency of Fort St. George.	Introduced and referred to a select committee on the 18th June 1883.	Withdrawn—Vide Abstract Proceedings of Council, dated 18th August 1884.

APPENDIX No. LI.

CHRONOLOGICAL LIST OF THE UNREPEALED ACTS OF THE SUPREME COUNCIL RELATING SOLELY TO THE MADRAS PRESIDENCY, REVISED DOWN TO THE END OF 1884.

Year.	Number.	Subject.
1837	XXXVI	Criminal Jurisdiction of Collectors.
1839	VII	Tahsildars.
	XXIV	Ganjam and Vizagapatam.
1840	VIII	Awards by Punchayets.
1842	IV	Boat Regulations, Madras Roads.
1844	VI	Transit Duties, Salt.
1846	IX	Boats in Harbours, Madras.
1849	X	Commissioner of Revenue.
1851	XII	Land Revenue, Madras Town.
1852	XIX	Abkarry Revenue, Madras Town.
1854	XXIV	War Knives, Malabar.
1855	X	Recusant Witnesses.
	XXI	Minors.
1856	III	Abkarry Commissioners, Madras.
1857	VII	Uncovenanted Agency.
1858	I	Forced Labor.
	XIV	Minors.
1859	XX	Moplahs, Malabar.
	XXIV	Police.
1860	XXVIII	Boundary Marks.
1868	XVIII	Small Cause Jurisdiction, Neilgherries.
1873	III	Civil Courts.
1873	XX	Prince of Arcot.
1880	XVI	Madras Irrigation and Canal Company.
1881	IV	Madras Port Dues Enhancement.
1882	XXI	Removing Doubts regarding Madras Forest Act.
1884	II	Unregistered Instruments of Partition relating to Immovable Property in the Madras Presidency.

APPENDIX No. LII.

CHRONOLOGICAL LIST OF ACTS OF PARLIAMENT RELATING TO INDIA, REVISED DOWN TO THE END OF 1884.

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
1285	13 Ed. I	I	*De Donis.*	
		XXII	Waste between joint-tenants and tenants in common.	
1289-90	18 Ed. I	I, II	*Quia Emptores.*	
1297	25 Ed. I	I, XXIX	*Magna Charta.*	
1331	5 Ed. III	IX	Unlawful attachment.	
1350-51 and 1351-52	25 Ed. III	Stat. the First.	Inheritability of Children born beyond sea.	
1354	28 Ed. III	III	Non-condemnation without due process.	
1535-36	27 Hen. VIII	X	Uses and Trusts	Rep. in certain localities, Act IV of 1882.
1539	31 Hen. VIII	I	Joint-tenants and tenants in common.	
1540	32 Hen. VIII	XXXII	Partition by joint-tenants for life or years.	
		XXXIV	Grantees of reversions.	
		XXXVII	Recovery of arrears by executors.	
		XXXVIII	Pre-contracts and degrees of consanguinity.	
1548	2 & 3 Ed. VI	XXIII	Do. do.	
1571	13 Eliz.	V	Fraudulent Conveyances	Rep. in certain localities, Act IV of 1882.
1584-85	27 Eliz.	IV	Do. do.	Rep. in certain localities, Act IV of 1882.
1627	3 Car. I	I	Petition of right.	
1666	18 & 19 Car. II	XI	Proof of death of *cestui que vie.*	
1667	29 Car. II	III	Frauds and Perjuries	Rep. in part, Act IX of 1872; Act XII of 1873; in certain localities, Act II of 1882.
1679	31 Car. II	II	*Habeas Corpus.*	
1688	1 Wm. & M.	VI	Coronation Oath.	
	1 Wm. & M., Sess. 2.	II	Rights and Liberties	Rep. in part, 6 Geo. IV, c. 50.
1689	2 Wm. & M.	I	Recognizing William and Mary.	
1692	4 Wm. & M.	XVI	Clandestine Mortgages	Rep. in certain localities, Act IV of 1882.
1697-98	9 Wm. III	XVII	Inland Bills of Exchange	Rep., Act XXVI of 1881.
	9 & 10 Wm. III	XLIV	India.	
1698	10 Wm. III	XXII	Posthumous Children.	
1698-99	11 Wm. III	XII	Crimes committed in Plantations.	
1700-01	12 & 13 Wm. III	II	Limitation of Crown	Rep. in part, 1 Geo. I, Stat. 2, c. 51; 4 & 5 Anne, c. 20; 7 & 8 Vic., c. 66; 33 Vic., c. 14.
1702	1 Anne	II	Non-discontinuance of writ by death of Sovereign.	
1704	3 & 4 Anne	VIII	Promissory Notes	Rep., Act XXVI of 1881.
1705	4 & 5 Anne	III	Attornments: Warranties; Accounts.	
		XVI	Princess Sophia.	
1707	6 Anne	XLI	Security of Queen and Government: Privy Council.	
		LXXII	Discovery of deaths of tenants for life.	
1708	7 Anne	V	Children of natural-born subjects born out of England.	
1720	7 Geo. I	V	National Debt.	
1743	17 Geo. II	XVII	Supply.	
1749	23 Geo. II	XXII	Bank of England.	
1770	10 Geo. III	LXIV	East India Company.	
1772-73	13 Geo. III	LXIII	Government of India	Rep. in part, 33 Geo. III, c. 52; Act X of 1882.
		LXIV	East India Company.	

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
1778	19 Geo. III	LXI	East India Company.	
1779	20 Geo. III	LVI	East India Company.	
1780	21 Geo. III	LXV	East India Company.	
		LXX	Government of India.	
1782	23 Geo. III	XXXVI	East India Company.	
		LXXXIII	East India Company.	
1784	24 Geo. III, Sess. 2	XXV	Procedure in Parliament against Indian offenders.	
		XXXIV	East India Company	Rep., 24 & 25 Vic., c. 151.
1786	26 Geo. III	LVII	Procedure in Parliament against Indian offenders.	Rep. in part, Act I of 1872.
1787	28 Geo. III	XXIX	India.	
1792	33 Geo. III	XLVII	India.	
		LII	Government of India	Rep. in part, 3 & 4 Wm. IV, c. 85; 7 Wm. IV and I Vic., c. 70; 24 & 25 Vic., c. 54. Modified, Act XI of 1876.
1794	34 Geo. III	XLI	India.	
1796-97	37 Geo. III	CXLII	Judicial Establishments.	
1799	39 & 40 Geo. III	XXXVI	Supreme Court Chancery.	
		LXXIX	Government of India.	
1801	42 Geo. III	LXXXV	Prosecution in King's Bench of offences committed abroad.	
1807	47 Geo. III, Sess. 2	XLI	East India Company.	
		LXVIII	India	Rep. in part, Act XI of 1876.
1809	49 Geo. III	CXXVI	Sale and brokerage of offices ...	Rep. in part, Stat. Law Rev. Act, 1872 (No. 2).
1810	50 Geo. III	LXXXVII	Courts-martial	Rep., 44 & 45 Vic., c. 57.
1811	51 Geo. III	LXIV	Transferability of Company's Bonds.	
		LXXV	Restoration of Military officers ...	Rep., 44 & 45 Vic., c. 57.
1812	52 Geo. III	CLVI	Prisoners of War.	
1812-13	53 Geo. III	CLV	Government of India	Rep. in part, Stat. Law. Rev. Act, 1873; Act IX of 1871; 43 Vic., c. 3.
1814-15	55 Geo. III	LXXXIV	Limits of Presidency Towns.	
1816	56 Geo. III	LXXXII	Acts of Surrogates (Admiralty).	
1819	59 Geo. III	LX	Special ordination for Colonies ...	Rep. in part, 37 & 38 Vic., c. 77.
1820	1 Geo. IV	CI	Examination of witnesses in support of Divorce Bills.	
1823	4 Geo. IV	LXXI	Pensions to Bishops, &c. : Ordination Bombay Supreme Court.	Rep. in part, 43 Vic., c. 3.
		LXXX	Trading Vessels	Ss. 29 & 30, repealed by 47 & 48 Vic., c. 43.
1824	5 Geo. IV	CXIII	Slave Trade	Rep. in part, 36 & 37 Vic., c. 88.
1825	6 Geo. IV	LXXVIII	Hoisting Flag at Sea	Rep. in part, Stat. Law Rev. Act, 1873.
		LXXXV	Salaries and Pensions of Judges and Bishops : Resignation under ten years' service : Ceded Colonies, Coromandel Coast.	
1826	7 Geo. IV	LII	Expenses of Naval Force in India.	
		LVI	Salaries of Officers dying during temporary absence.	
1828	9 Geo. IV	XXXIII	Real Assets	Rep. with savings, 36 & 37 Vic., c. 91.
		LXXIV	Administration of criminal justice.	
1829	10 Geo. IV	LXII	Governor-General or Governor, incapable of sitting in House of Commons.	
1830-31	1 Wm. IV	IV	Patents of Governors.	
1831-32	2 & 3 Wm. IV	LI	Vice-Admiralty Courts.	
		LIII	Army Prize-money.	
1833	3 & 4 Wm. IV	XV	Dramatic literary property.	
		XLI	Appeals to Judicial Committee ...	Rep. in part, Stat. Law Rev. Act, 1861.
		LXXXV	Government of India : St. Helena : Slavery.	Rep. in part, 24 & 25 Vic., c. 67; 43 Vic., c. 3.
		XCIII	Power to trade between Cape of Good Hope and Straits of Magellan.	
1834	4 & 5 Wm. IV	XXIV	Pensions, compensations and allowances.	Rep. in part, 22 Vic., c. 26; 32 & 33 Vic., c. 60; with savings.
1835	5 & 6 Wm. IV	LII	Power to postpone division of Bengal into two Presidencies : Appointment of Lieutenant-Governor, North-Western Provinces.	
1837	7 Wm. IV & 1 Vic.	XLVII	Payment of salaries during absence.	
1840	3 & 4 Vic.	LVI	Trade of Indian Ships	Rep. in part, Stat. Law Rev. Act, 1874 (No. 2).

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
1842	5 & 6 Vic.	XLV	Copyright.	
		C	Copyright of Designs	Rep. in part, Stat. Law Rev. Act, 1874 (No. 2). Rep. by 46 & 47 Vic., c. 57. Rep. in part, 47 & 48 Vic., c. 43.
		CXIX	Furlough allowances to Bishops.	
1843	6 & 7 Vic.	XXII	Power to legislate for admission of unsworn testimony.	
		XXXVII	Privy Council.	
		LXV	Copyright of Designs	Rep. by 46 & 47 Vic., c. 57. Rep. in part, Stat. Law Rev. Act, 1874 (No. 2).
		XCIV	Foreign Jurisdiction	Rep. in part, 41 & 42 Vic., c. 67.
		XCVIII	Slave Trade.	
1844	7 & 8 Vic.	XII	International Copyright	Rep. in part, Stat. Law Rev. Act, 1874 (No. 2); 15 & 16 Vic., c. 12.
		XVIII	Courts-martial	Rep., 44 & 45 Vic., c. 57.
		LXIX	Judges' notes of Evidence, Judicial Committee.	Rep. in part, 46 & 47 Vic., c. 57.
1845	8 & 9 Vic.	XXX	Judicial Committee Appeals	Rep. in part, Stat. Law Rev. Act, 1875.
1847	10 & 11 Vic.	XXXVII	Time of service in Army	Rep., 44 & 45 Vic., c. 57.
		LXII	Deserters from Navy	Rep. in part, 29 & 30 Vic., c. 109; 47 & 48 Vic., c. 43.
		XCV	Import of reprints of Copyright works	
1847-48	11 & 12 Vic.	XXI	Insolvent Debtors	Rep. in part, Stat. Law Rev. Act, 1875.
1849	12 & 13 Vic.	XXV	Deserters from Portuguese Vessels ...	Rep. in part, Stat. Law Rev. (Substituted Enactments) Act, 1876.
		XCVI	Trial of offences committed in Admiralty Jurisdiction.	
1850	13 & 14 Vic.	XXVI	Admiralty Courts: Piracy: Salvage ...	Rep. in part, Stat. Law Rev. Act, 1875.
		CIV	Copyright of Designs	Rep. in part, Stat. Law Rev. Act, 1875. Rep., 46 & 47 Vic., c. 57.
1851	14 & 15 Vic.	LXXXI	Removal from India of insane offenders and of lunatics and idiots.	
1852	15 Vic.	XII	International Copyright.	
	15 & 16 Vic.	XXVI	Apprehension of foreign deserters.	
		XLIV	Carriage of Passengers by Sea ...	Amended, 16 & 17 Vic., c. 84.
		LII	Colonial Bishops.	
1853	16 & 17 Vic.	XLVIII	Offences relating to Coin.	
		XLIX	Colonial Bishops.	
		LXXXIV	Amending Passengers' Act.	
		XCV	Government of India	Rep. in part, 24 & 25 Vic., c. 67.
		CVII	Coasting Trade.	
1854	17 & 18 Vic.	LXXVII	Passing Letters Patent, &c., relating to India: Powers of Governor-General.	
		CIV	Merchant Shipping	Rep. in part, 25 & 26 Vic., c. 63; 30 & 31 Vic., c. 124; 34 & 35 Vic., c. 110; 35 & 36 Vic., c. 73; 36 & 37 Vic., c. 85; 37 & 38 Vic., c. 88; 39 & 40 Vic., c. 80; 43 & 44 Vic., c. 16; 43 & 44 Vic., c. 18; 43 & 44 Vic., c. 43; 45 & 46 Vic., c. 76; 46 & 47 Vic., c. 41; 47 & 48 Vic., c. 43.
		CXX	Shipmasters leaving Seamen in distress.	
1855	18 Vic.	IV	Time of service in Army.	
	18 & 19 Vic.	XCI	Merchant Shipping (jurisdiction in case of offences on boardship).	Rep. in part, 34 & 35 Vic., c 110.
		XCIII	Pensions to Judges.	
		CIV	China Merchant Shipping.	
		CXIX	Carriage of Passengers by Sea ...	Rep. in part, 47 & 48 Vic., c. 43.
1856	19 & 20 Vic.	CXIII	Evidence before Foreign Tribunals.	
1857	20 & 21 Vic.	XXXIX	Colonial Attorneys	Amended, 47 & 48 Vic., c. 24.
	21 Vic.	III	India.	
1858	21 & 22 Vic.	LXX	Copyright of Designs	Rep., 46 & 47 Vic., c. 57.

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
		CVI	Government of India	Rep. in part, 24 & 25 Vic., c. 95.
1859	22 Vic.	XI	Power to raise £7,000,000	Rep. in part, 24 & 25 Vic., c. 95.
		XX	Taking evidence out of jurisdiction.	
	22 & 23 Vic.	XXXIX	Power to raise £5,000,000	Rep. in part, 24 & 25 Vic., c. 95.
		XLI	Amending Government of India Act.	
		LXIII	Law Ascertainment Facilities.	
1860	23 & 24 Vic.	V	Probate with respect to Indian Securities.	
		LXXXVIII	Admiralty Jurisdiction.	
		C	European Troops.	
		CXXII	Power to Legislatures abroad.	
		CXXX	Power to raise £3,000,000	Rep. in part, 24 & 25 Vic., c. 95.
1861	24 Vic.	XI	Ascertainment of Foreign Law.	
	24 & 25 Vic.	XXV	Power to raise £4,000,000.	
		LIV	Appointments reserved for Civil Service.	
		LXVII	Indian Councils Act.	
		LXXIII	Copyright of Designs.	Rep., 46 & 47 Vic., c. 57.
		XCVII	Destruction of Ships	Rep. in part, 47 & 48 Vic., c. 43.
		CI	Statute Law Revision.	
		CIV	High Courts of Judicature.	
		CXIV	Wills of Personal Estate.	
		CXVIII	Power to raise £5,000,000.	
		CXXI	Wills and Domicile of British subjects abroad.	
1862	25 & 26 Vic.	VII	Registration and Transfer of India Stock.	
		XX	Habeas Corpus.	
		XXXIX	Red Sea and India Telegraph.	
		LXIII	Merchant Shipping Act Amendment...	Rep. in part, 36 & 37 Vic., c. 85; 46 & 47 Vic., c. 41.
		LXVIII	Copyright in works of Fine Art.	
1863	26 & 27 Vic.	XXIV	Vice-Admiralty Courts.	
		LVII	Regimental Debts	Amended, 44 & 45 Vic., c. 57.
		LXXIII	Bank of England.	
		LXXVI	When Letters Patent take effect in Colonies.	
		XXV	Naval Prize of War.	
1864	27 & 28 Vic.	LI	Site of India Office.	
1865	28 & 29 Vic.	XV	Extension of time for granting Letters Patent to High Courts.	
		XVII	Legislation for Native Indian subjects.	
		XXXII	Site of India Office.	
		CXVI	Explaining Foreign Jurisdiction Act.	
1866	29 & 30 Vic.	XVIII	Transfer of Military Funds.	
		XLVIII	Indian Prize-money.	
		LXXXVII	Foreign Jurisdiction.	
		CIX	Naval Discipline	Amended, 47 & 48 Vic., c. 39 & 64.
		CXV	Straits Settlements.	
1867	30 & 31 Vic.	XXXIV	Period of Enlistment in the Army ...	Rep., 44 & 45 Vic., c. 57.
		XLV	Vice-Admiralty Courts.	
		CXXIV	Merchant Shipping.	
		CXXXII	Investment of Trust Funds in East India Stock.	
		XXVI	Railway Debenture Stock.	
		XXIX	Medical Practitioners.	
		XXVII	Documentary Evidence.	
		XXXVIII	Unclaimed Prize-money.	
		LXI	Consular Marriages.	
1868	31 & 32 Vic.	XCI	Sir R. Napier's Annuity.	
		CXXIX	Registration of Ships.	
1869	32 Vic.	III	Lord Napier's Salary.	
		VII	East India Irrigation and Canal Company.	
		XI	Coasting Trade and Merchant Shipping.	
		XXIX	Inam Title-deeds.	
	32 & 33 Vic.	LXXI	Bankruptcy	Rep. as to England, 46 & 47 Vic., c. 52.
		LXXVI	Basses Lights	Rep. in part, 35 & 36 Vic., c. 55.
		LXXXVIII	Diocese of Straits Settlements.	
		XCV	Millbank Prison.	
		XCVII	Council of India	Rep. in part, 46 & 47 Vic., c. 39.
		XCVIII	Council of India	S. 2 rep., 46 & 47 Vic., c. 39.

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
		CVI	Power to raise £8,000,000	Rep. in part, 37 & 38 Vic., c. 3.
1870	33 Vic.	III	Council of India	S. 4 rep., 46 & 47 Vic., c. 39.
		XIV	Naturalization	Rep. in part, 46 & 47 Vic., c. 39.
	33 & 34 Vic.	LII	Extradition	Rep., in part, 46 & 47 Vic., c. 39.
		LIX	Validation of informal contracts. ...	S. 1 rep., 46 & 47 Vic., c. 39.
		LXVII	Army Enlistment	Rep. in part, 44 & 45 Vic., c. 57.
		XC	Foreign Enlistment	S. 31 rep., 46 & 47 Vic., c. 39.
		CII	Oaths of allegiance on Naturalization.	
1871	34 & 35 Vic.	XXXIV	Local Legislation for European British subjects.	
		LXII	Furlough of Indian Bishops	Rep. in part, 46 & 47 Vic., c. 39.
		XCI	Privy Council	Rep. in part, 46 & 47 Vic., c. 39.
		CX	Merchant Shipping	Rep. in part, 36 & 37 Vic., c. 85; 39 & 40 Vic., c. 80. S. 12 rep., 46 & 47 Vic., c. 39.
	35 Vic.	XII	Pensions.	
1872	35 & 36 Vic.	XXXIX	Naturalization.	
		LV	Basses Lights	S. 8 rep., 46 & 47 Vic., c. 39.
		LVI	Lady Mayo's Annuity.	
		LXXIII	Merchant Shipping	Rep. in part, 37 & 38 Vic., c. 51; 39 & 40 Vic., c. 80; 46 & 47 Vic., c. 39.
1873	36 Vic.	XVII	East India Stock Dividends	Rep. in part, 46 & 47 Vic., c. 39.
		XXXII	Power to raise £8,000,000	Rep. in part, 37 & 38 Vic., c. 3; 46 & 47 Vic., c. 39.
	36 & 37 Vic.	XLIII	Power of Railways to issue shares in India.	
		LIX	Slave Trade (East African Courts) ...	Amended and rep. in part, 42 & 43 Vic., c. 38. Rep. in part, 46 & 47 Vic., c. 39.
		LX	Extradition.	
		LXXXV	Merchant Shipping	Rep. in part, 39 & 40 Vic., c. 80; 46 & 47 Vic., c. 41. S. 33 rep., 46 & 47 Vic., c. 39.
		LXXXVIII	Slave Trade	Rep. in part, 46 & 47 Vic., c. 39.
1874	37 Vic.	III	Power to raise £10,000,000	Rep. in part, 46 & 47 Vic., c. 39.
		XII	Transfer of Civil Funds.	
		XIII	Bishop of Calcutta	Rep., 46 & 47 Vic., c. 39.
	37 & 38 Vic.	XXVII	Sentences of Colonial Courts.	
		XLI	Colonial Attorneys	Amended 47 & 48 Vic., c. 24.
		LXI	Compensation to Ordnance Officers ...	Ss. 3 to 5 rep., 46 & 47 Vic., c. 39.
		LXXVII	Colonial Clergy	Rep. in part, 46 & 47 Vic., c. 39.
		LXXXVIII	Births at Sea	Rep. in part, 46 & 47 Vic., c. 39.
		XCI	Council of Governor-General.	
1875	38 & 39 Vic.	LXXIII	Home Government	Rep. 46 & 47 Vic., c. 39.
		LXXXV	Foreign Jurisdiction.	
1876	39 Vic.	VII	Council of India.	
		X	Imperial Title.	
	39 & 40 Vic.	XXXVI	Foreign Reprints of Copyright works.	Rep. in part, 46 & 47 Vic., c. 39. S. 111 and part of S. 142 rep., 47 & 48 Vic., c. 62.
		XLVI	Slave Trade.	
		LXXX	Merchant Shipping	Rep. in part, 46 & 47 Vic., c. 39; 43 & 44 Vic., c. 43.
1877	40 & 41 Vic.	LI	Power to raise £5,000,000	Rep. in part, 42 & 43 Vic., c. 60. S. 19 rep., 46 & 47 Vic., c. 39.
1878	41 & 42 Vic.	LXI	Feejee Marriages.	
		LXVII	Foreign Jurisdiction	Rep. in part, 46 & 47 Vic., c. 39.
		LXXIII	Territorial Waters Jurisdiction.	
1879	42 Vic.	VIII	Registration of Births, Deaths, &c., in Army.	

Year.	Reign.	Cap.	Subject-matter.	How repealed or otherwise determined.
	42 & 43 Vic.	XXIX	Marriages on Her Majesty's Ships.	
		XXXIII	Army Discipline and Regulation ...	Rep. in part, 44 Vic., c. 9; 44 & 45 Vic., c. 57; 44 & 45 Vic., c. 58.
		XXXVIII	Slave Trade (East African Courts).	
		XLI	Indian Guaranteed Railways.	
		XLIII	East Indian Railway.	
		XLV	Indian Advance	Rep., 44 & 45 Vic., c. 54.
		LX	East India Loan	Rep., 44 & 45 Vic., c. 54.
		LXXII	Shipping Casualties Investigations.	
1880	43 Vic.	III	Indian Salaries and Allowances.	
		X	East India Loan (East Indian Railway Debentures).	
		XI	India Stock (Powers of Attorney).	
	43 & 44 Vic.	XVI XVIII	Merchant Shipping.	Rep. in part, 46 & 47 Vic., c. 41.
		XLIII	Merchant Shipping (Grain Cargoes).	
		III	Judicial Committee.	
1881	44 Vic.	VII	India Office (Sale of Superfluous Land).	
		IX	Army Discipline and Regulation (Annual).	Rep. in part, 44 & 45 Vic., c. 58.
	44 & 45 Vic.	LIII	East Indian Railway (Redemption of Annuities).	
		LIV	Indian Loan	Rep., 47 & 48 Vic., c. 2.
		LVII	Regulation of the Forces	Rep. in part, 44 & 45 Vic., c. 58.
		LVIII	Army	Amended by 46 & 47 Vic., c. 6. Amended, 47 & 48 Vic., c. 8 & 64.
		LXIII	India Office Auditor.	
		LXIX	Fugitive Offenders.	
1882	45 Vic.	VII	Army.	
	45 & 46 Vic.	XLV	Bombay Civil Fund.	
		LXXVI	Merchant Shipping (Colonial Inquiries) Act.	
		LXXIX	India (Home Charges Arrears).	
1883	46 & 47 Vic.	VI	Army (Annual) Act.	
		XLI	Merchant Shipping Act Amendment.	
		XLV	Counterfeit Medal.	
		LII	Bankruptcy	Amended, 47 & 48 Vic., c. 9.
		LIV	Natural Debt	S. 7 rep., 47 & 48 Vic., c. 2.
		LVII	Patents, Designs and Trade-marks.	
		LVIII	Post Office Money Orders.	
1884	47 & 48 Vic.	II	Natural Debts.	
		VII	Army Act.	
		XXIII	National Debts (Conversion of Stock).	
		XXIV	Colonial Attorneys.	
		XXX	Great Seals.	
		XXXI	Colonial Prisoners' Removal.	
		XXXVIII	Indian Marine Service.	
		XXXIX	Naval Discipline.	
		LXIV	Criminal Lunatics.	

APPENDIX No. LIII.

ALPHABETICAL INDEX TO THE UNREPEALED ACTS AND REGULATIONS OF INDIAN LEGISLATURES APPLICABLE TO MADRAS, REVISED DOWN TO END OF 1884.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Abkarry—Madras Town ...	19	1852	India	Rep. in part, India Act 13 of 1856. Do. 14 of 1870. Amended by Madras Act 5 of 1879.
	3	1856	Do.	
Abkarry—Mofussil	3	1864	Madras	Amended by Madras Act 5 of 1879.
Abkarry—Amendment ...	5	1879	Do.	
Accountants—Public	12	1850	India	Rep. in part, India Act 14 of 1870.
Acquisition of Land	10	1870	Do.	Rep. in part, India Act 9 of 1871. Do. 12 of 1876. Do. 13 of 1879.
Act—General Clauses ...	1	1867	Madras	Rep. in part, India Act 16 of 1874.
	1	1868	India	Do. do. 1 of 1872.
Administration	...	...	......	See Probate and Administration.
Administration of Estates in certain cases.	3	1802	Madras Regulation ...	Rep. in part, India Act 10 of 1861. Do. 17 of 1862. Do. 3 of 1873. Do. 16 of 1874. Do. 12 of 1876. Mad. Act 5 of 1867. Do. 2 of 1869.
Administration of Estates charged with mortgage before 1866.	23	1855	India	Rep. (except as to descents and devises occurring or made before 1866), India Act 8 of 1868. Rep. in part, India Act 16 of 1874.
Administrator-General ...	2	1874	Do.	Rep. in part, India Act 1 of 1879. Amended, do. 9 of 1881.
	5	1881	Do.	
	9	1881	Do.	
Administrators, suits by ...	...	...	......	See Executors.
Aliens—Naturalization of ...	30	1852	......	Rep. in part, India Act 16 of 1874. Do. 12 of 1876.
Andaman and Nicobar Islands Regulation.	3	1876	India Regulation ...	Amended by India Act 8 of 1883.
Animals, cruelty to	...	...	......	See Cruelty.
Appointment to Judicial offices.	...	...	......	See Offices, Judicial.
Apprentices	19	1850	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874.
Arms	11	1878	Do.	Rep. in part, India Act 11 of 1882.
Articles of War—Native ...	5	1869	Do.	Do. do. 14 of 1870.
Assessment, Revenue	...	...	......	See Revenue, Assessment.
Assistant Commissioner, Neilgherries.	...	...	......	See Courts.
Assurances, Registration of ...	...	...	......	See Registration.
Asylums—Lunatic	...	...	......	See Lunatic.
Awards of Punchayets ...	...	...	......	See Punchayets.
Banks—Government Savings ...	5	1873	India	Rep. in part, India Act 12 of 1873. Do. 16 of 1874.
Banks—Presidency ...	11	1876	Do.	Rep. in part, India Act 5 of 1879.
	5	1879	Do.	
Bills of Exchange	5	1866	Do.	See Commercial Law and Negotiable Instruments.
Bills of Lading	9	1856	Do.	
Board of Revenue ...	1	1803	Madras Regulation ...	Rep. in part, India Act 23 of 1871. Do. 10 of 1873. Mad. Reg. 2 of 1806. Do. 5 of 1828. Do. 3 of 1830. Mad. Act 2 of 1864, s. 62. Do. 2 of 1869.
	10	1849	India	See Madras Revenue Board.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Boards, Local	...	...	......	See Local Boards.
Boats Act	4	1842	India	Rep. in part, India Act 16 of 1874. See, too, Mad. Acts 4 of 1869 and 1 of 1877.
Boats Regulations ...	9	1846	Do.	
	4	1869	Madras.	
	2	1873	Do.	
	1	1877	Do.	
Boundary Marks	28	1860	India	Rep. in part, India Act 14 of 1870. Amended Madras Act 2 of 1884.
Do. Act Amendment...	2	1884	Madras.	
Boundary, Punchayets ...	12	1816	Madras Regulation ...	Rep. in part, India Act 7 of 1870, sch. 3. Do. 12 of 1876. Mad. Act 2 of 1869.
Bramho Marriage	...	...	......	See Marriage.
British Land	...	...	......	See European British Land.
British Minors	...	...	......	See European British Minors.
Bridges and Roads, Tolls on ...	...	...	......	See Tolls.
British Subjects	...	...	......	See European British Subjects.
Burmah Coast Lights	9	1879	India	Rep. by India Act 7 of 1883.
Camp Followers—Liability of...	12	1842	Do.	Rep. in part, India Act 16 of 1874. Extended, India Act 14 of 1855.
Canals and Ferries—Tolls on ...	1	1870	Madras	Amended by Mad. Act 4 of 1878.
Do.	4	1878	Do.	
Canal Company	...	...	......	See Madras Irrigation.
Cantonments	3	1880	India.	
	1	1866	Madras.	
Cantonments—Joint Magistrates.	3	1859	India	Rep. in part, India Act 16 of 1864. Do. 16 of 1874. Do. 12 of 1876. Locally Mad. Act 1 of 1866, s. 9.
Carriages—Hackney	...	...	......	See Hackney Carriage Act.
Carriages—Stage	...	...	......	See Stage Carriages.
Carriers	3	1865	India	Rep. as to carriers by rail, India Act 4 of 1879.
Cattle Diseases Act ...	2	1866	Madras	Amended by Madras Act I of 1879.
	1	1879	Do.	
Cattle Trespass Acts ...	1	1871	India	Rep. in part, India Act 16 of 1874. Amended by India Act 18 of 1883.
	18	1883	Do.	See Police, Tanjore.
Cauvaly	...	...	......	
Cauzees	12	1880	India.	
Census	14	1880	Do.	
Charitable Endowments ...	...	...	......	See Endowments.
Charter Courts—Lunacy in ...	...	...	......	See Lunacy.
Cheques	...	...	......	See Negotiable Instruments.
Christian Marriage	...	...	......	See Marriage.
Civil Courts	...	...	......	See Courts.
Civil Procedure	...	...	......	See Procedure.
Civil Service	...	...	......	See Covenanted C.S.
Claims to Waste Lands ...	...	...	......	See Waste Lands.
Coast Lights	...	...	......	See Burmah Coast Lights.
Coasting Trade	5	1850	India.	
Cocanada Port Dues Act ...	3	1883	Madras.	
Code of Civil Procedure ...	...	...	......	See Procedure.
Code of Criminal Procedure ...	...	...	......	Do.
Coffee Act	8	1878	Madras.	
Coinage—Indian	23	1870	India	Rep. in part, India Act 12 of 1873. Do. 12 of 1876.
Coinage—Native	9	1876	Do.	
Collectors—District ...	2	1803	Madras Regulation ...	Rep. in part, India Act 23 of 1871. Do. 12 of 1873. Do. 12 of 1876. Mad. Reg. 2 of 1806. Mad. Act 2 of 1864, s. 62. Do. 6 of 1865. Do. 2 of 1869.
	36	1837	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874. See Criminal Jurisdiction, Madras.
Collectors—Sub ...	7	1828	Madras Regulation ...	Rep. in part, India Act 12 of 1876. Mad. Act 2 of 1869.
	36	1837	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874.
Collectors—Deputy	7	1857	Do.	Rep. in part, India Act 17 of 1862. Do. 10 of 1873. Do. 12 of 1873.
Collection of Debts in cases of Succession.	27	1860	Do.	Rep. in part, India Act 16 of 1874. Do. 5 of 1881, s. 151. Rep. (except as to Hindoos, Mahomedans and Booddhists and persons exempted from the Succession Act) India Act 24 of 1867, s. 2.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Commercial Law ... ... Bills of Exchange.	5	1866	India	Rep. in part, India Act 14 of 1870. Do. 9 of 1871, sch. 2, No. 5. Do. 9 of 1872. Do. 10 of 1877. Do. 26 of 1881.
Commissioner of Revenue ...	10	1849	India.	
Commissonor of Salt Revenue.	6	1878	Madras.	
Companies Act—Indian ...	6	1882	India.	
Compensation to families of persons whose death has been caused by actionable wrong.	13	1855	Do.	Rep. in part, India Act 9 of 1871.
Compulsory Labour	1	1858	Do.	Rep. in part, India Act 16 of 1874.
Conservancy Rivers	...	...	......	See Rivers Conservancy.
Contagious Diseases	14	1868	India	Rep. in part, India Act 9 of 1871.
Contracts—Native Labourers ...	5	1866	Madras	Rep. in part, India Act 3 of 1876.
Contracts — Fraudulent breaches of.	13	1859	India	Rep. in part, India Act 16 of 1874.
Contract Act	9	1872	Do.	Rep. in part, India Act 1 of 1877.
Copyright	20	1847	Do.	Rep. in part, India Act 17 of 1862. Do. 14 of 1870. Do. 9 of 1871. Do. 16 of 1874. Do. 12 of 1876. Do. 1 of 1879.
Coroners	4	1871	Do.	Rep. in part, India Act 9 of 1871. Do. 10 of 1873. Do. 12 of 1873. Do. 16 of 1874. And amended do. 10 of 1881.
	10	1881	Do.	Rep. in part, India Act 10 of 1882.
Courts—Military, of Requests.	11	1841	Do.	Rep. in part, India Act 14 of 1870. Do. 9 of 1871. Do. 16 of 1874. Locally Madras Act 1 of 1866, s. 9. Suspended in certain cantonments, India Act 3 of 1859, s. 2.
	12	1868	Do. ...	Section 17 May be suspended XII of 1868.
Courts—Military enforcement of judgments.	33	1852	Do.	Rep. in part, India Act 10 of 1861. Do. 7 of 1870. Do. 10 of 1877.
Courts—Assistant Commissioner, Neilgherries.	18	1868	Do.	Rep. in part, India Act 14 of 1870. Do. 16 of 1874.
Courts—Madras Civil ...	3	1873	Do.	Rep. in part, India Act 12 of 1873. Do. 19 of 1877.
	19	1877	Do.	
Courts—Mofussil Small Cause.	11	1865	Do.	Rep. in part, India Act 7 of 1870. Do. 14 of 1870. Do. 12 of 1876. Do. 10 of 1877. Amended do. 12 of 1881.
Courts—Presidency Small Cause.	15	1882	Do.	
Court of Wards ... Minors' Estates.	5	1804	Madras Regulation ...	Rep. in part, India Act 35 of 1858. Do. 12 of 1876. Mad. Act 2 of 1869.
	10	1831	Do. ...	Rep. in part, India Act 12 of 1876.
	21	1855	India.	
Court Fees	7	1870	Do.	Rep. in part, India Act 14 of 1870. Do. 16 of 1870. Do. 20 of 1870. Do. 8 of 1871. Do. 15 of 1872. Amended do. 5 of 1881.
	20	1870	Do.	
	5	1881	Do.	
Covenanted, C.S.	19	1802	Madras Regulation ...	Rep. in part by Madras Act 2 of 1869.
Criminal Jurisdiction, Madras.	36	1837	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874.
Criminal Procedure	10	1882	Do.	Amended India Act III of 1884.
Do. Amendment	3	1884	Do.	
Criminal Tribes ...	27	1871	Do.	Rep. in part, India Act 16 of 1874. Do. 12 of 1876. Amended do. 7 of 1876.
	7	1876	Do.	
Cruelty to Animals	4	1879	Madras.	
Cultivators	...	...	......	See Rights of Cultivators.
Curators in Cases of Succession.	19	1841	India	Rep. in part, India Act 8 of 1855, s. 13. Do. 16 of 1874. Do. 12 of 1876.
Curnums	29	1802	Madras Regulation	Rep. in part, India Act 12 of 1876. Rep. in part, Locally Mad. Reg. 2 of 1806, s. 7.
	2	1806	Do. ...	Rep. in part, India Act 12 of 1876. Mad. Act 8 of 1865, s. 89. Do. 2 of 1869.
Currency—Paper	...	...	......	See Paper Currency.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Customs—Inland ...	6	1844	India	Rep. in part, India Act 7 of 1859. Do. 23 of 1859. Do. 6 of 1863. Do. 19 of 1866. Do. 34 of 1867. Do. 8 of 1868. Do. 11 of 1869. Do. 24 of 1869. Do. 13 of 1871. Do. 16 of 1874. Do. 18 of 1877.
	8	1875	Do.	Rep., India Act 12 of 1882.
Customs—Sea	8	1878	Do.	
Debts in cases of succession ...	...	...	......	See Collection.
Degrees—Honorary	...	...	......	See Universities.
Delegates—District	...	...	......	See District Delegates.
Deputy Collectors	...	...	......	See Collectors, Deputy.
Descents before 1866	30	1839	India	Rep. (except as to certain descents), India Act 8 of 1868. See Succession Act.
Desertion by European Soldiers	11	1856	Do.	Rep. in part, India Act 14 of 1870. Do. 12 of 1873. Do. 16 of 1874.
Designs and Patterns	...	...	......	See Patterns and Designs.
Destruction of Records ...	3	1879	India.	
Disputes between Workmen and Employers.	...	...	......	See Workmen and Employers.
Dissolution of Native Christian Marriages.	21	1866	India	Rep. in part, India Act 7 of 1870. Do. 16 of 1874.
Distress in Presidency Towns...	15	1882	Do.	
District Collectors	...	...	......	See Collectors.
District Delegates	6	1881	India.	
District Judges	...	...	......	See Judges.
District Moonsifs	...	...	......	See Moonsifs.
District Municipalities ...	4	1884	Madras	See Municipalities, Mofussil.
Dividends—Unclaimed, in Estates of Insolvents.	27	1841	India	Rep. in part, India Act 8 of 1868. Do. 16 of 1874.
Divorce Act	4	1869	Do.	Rep. in part, India Act 7 of 1870. Do. 12 of 1873.
Dower before 1866	29	1839	Do.	Rep. (except as to certain marriages), India Act 8 of 1868. See Succession Act.
Dues—Harbour	...	...	......	See Madras Harbour Dues.
Earth Salt	...	...	......	See Salt Earth.
Easements	5	1882	India.	
Elephants	1	1873	Madras.	
Emigration—Indian	21	1883	India	Amended India Act 21 of 1884.
Do.	21	1884	Do.	
Employers	...	...	......	See Workmen.
Endowments—Charitable ...	7	1817	Madras Regulation ...	Rep. in part, India Act 20 of 1863.
Endowments—Religious ...	20	1863	India	Rep. in part, India Act 7 of 1870. Do. 14 of 1870. Do. 16 of 1874.
English Law Cases, Profits and Improvements.	11	1855	Do.	Rep. in part, India Act 4 of 1882.
Equitable Assurance Society ...	...	...	......	See Society.
Estates—Administration of ...	...	...	......	See Administration.
Estates of Insolvents, unclaimed Dividends in.	...	...	......	See Dividends.
European British Minors ...	13	1874	India.	
European British Land	4	1837	Do.	Rep. in part, India Act 16 of 1874.
	2	1853	Do.	
European British Subjects ...	10	1882	Do.	
European Soldiers—Desertion by.	...	...	......	See Desertion.
European Vagrancy	...	...	......	See Vagrancy.
Evidence	1	1872	India	Rep. in part, India Act 18 of 1872.
	18	1872	Do.	Rep. in part, India Act 10 of 1873. Do. 16 of 1874. Do. 12 of 1876.
Excise	...	...	......	See Salt Excise.
Excise on Spirits used in Manufactures.	16	1863	India.	
Executors, Administrators, &c.—Suits by, before 1866.	12	1855	Do.	Rep. in part, India Act 9 of 1871.
Exemption from Municipal Taxation.	...	...	......	See Municipal. Taxation.
Extradition	21	1879	India	Rep. in part, India Act 10 of 1882.
	4	1880	Do.	
Explosives Act—Indian ...	4	1884	Do.	
Factories	15	1881	Do.	
Fairways—Obstruction in ...	16	1881	Do.	
Ferries, Tolls on	...	...	......	See Tolls.
Foreigners	3	1864	India	Rep. in part, India Act 12 of 1876.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Foreign Jurisdiction	...	...	......	See Extradition.
Foreign Trade	7	1831	Madras Regulation ...	Rep. in part, Mad. Act 2 of 1869.
Foreign Recruiting	4	1874	India ...	Rep. in part, India Act 12 of 1876.
Forests—Madras	...	...	......	See Madras Forests Act.
Forfeiture of Property—Mutiny.	25	1857	India ...	Rep. in part, India Act 5 of 1869. Do. 9 of 1871.
Fraudulent Breaches of Contracts.	...	...	......	See Contracts.
Game—Preservation of, in the Neilgherries.	2	1879	Madras.	
Ganjam and Vizagapatam	24	1839	India ...	Rep. in part, India Act 14 of 1870. Do. 16 of 1874. Mad. Act 1 of 1865.
General Clauses Act	...	...	......	See Act—General Clauses.
Government Savings Bank	...	...	......	See ... Banks, Government Savings.
Government Seals	...	...	......	Seals, Government.
Government Secretaries	...	...	......	Secretaries.
Government Securities	3	1881	India.	
Gunpowder	1	1880	Madras.	
Hackney Carriage Act	3	1879	Do.	
Harbour Dues	...	...	......	See Madras Harbour Dues.
Hereditary Officers	...	...	......	See Officers, Hereditary.
High Court Civil Procedure	...	...	......	See Procedure, High Court.
High Court Criminal Procedure.	...	...	......	See Procedure Criminal, High Court.
High Court, Trade by	...	...	......	See Public Servants, High Court.
Hindoo Widows	...	...	......	See Widows.
Hindoo Wills	...	...	......	See Wills.
Honorary Degrees	...	...	......	See Universities.
Inams	4 4	1862 1866	Madras. Do.	
Inams —Title-deeds to	8	1869	Do.	
Indian Coinage	...	...	......	See Coinage.
Indian Companies Act	...	...	......	See Companies.
Indian Contract Act	...	...	......	See Contract.
Indian Easements Act	...	...	......	See Easements.
Indian Emigration	...	...	......	See Emigration, Indian.
Indian Explosives Act	4	1884	India.	
Indian Majority	...	...	......	See Majority, Indian.
Indian Paper Currency	20	1882	India.	
Indian Penal Code	...	...	......	See Penal Code.
Indian Ports Act	...	...	......	See Ports Act, Indian.
Indian Railways	...	...	......	See Railways.
Indian Salt Act	...	...	......	See Salt.
Indian Securities	3	1881	India.	
Indian Steam Ships Act	7	1884	Do.	
Indian Tariff Act	...	...	......	See Tariff.
Indian Trusts Act	2	1882	India.	
Infants' Property	24	1841	Do. ...	Rep. in part, India Act 27 of 1866. Do. 8 of 1868. Do. 16 of 1874.
Improvement of Towns	4	1884	Madras.	
Inland Customs	...	...	......	See Customs.
Inland Steam Vessels	...	...	......	See Steam Vessels.
Instruments of Partition	...	...	......	See Titles.
Inventions, Protection of	16	1883	India.	
Irrigation Cess	7	1865	Madras.	
Irrigation and Canal Company.	...	...	......	See Madras Irrigation and Canal Company.
Jails	...	...	......	See Madras Jails Act; and Prisons.
Joint Magistrates—Cantonments.	...	...	......	See Cantonments.
Judges—District	3	1873	India ...	Rep. in part, India Act 12 of 1873. Do. 19 of 1877.
Judges—Sub	3	1873	Do. ...	Rep. in part, India Act 12 of 1873. Do. 19 of 1877.
Judges—Small Causes	11	1865	Do. ...	Rep. in part, India Act 7 of 1870. Do. 14 of 1870. Do. 12 of 1876. Do. 10 of 1877. Amended Do. 12 of 1881.
Judicial Oaths	...	...	......	See Oaths, Judicial.
Judicial Offices, Appointment to.	...	...	......	See Offices, Judicial.
Judicial Officers Judicial Records	...	...	......	See Officers, Judicial. Records, Judicial.
Justices of the Peace	10	1882	India.	
Labourers Contracts	...	...	......	See Contracts.
Land Acquisition	10	1870	India ...	Rep. in part, India Act 9 of 1871. Do. 12 of 1876. Do. 13 of 1879.
Land—European British	...	...	......	See European.
Land Improvement Loans Act.	19	1883	India.	
Lands—Malgoozarry	...	...	......	See Malgoozarry.
Law Reports	18	1875	India ...	Rep. in part, India Act 12 of 1876.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Laws Local Extent	15	1874	India	Rep. in part, India Act 8 of 1875. Do. 11 of 1875. Do. 12 of 1876. Do. 18 of 1877. Do. 6 of 1878. Do. 11 of 1878. Do. 14 of 1881, s. 14. Do. 26 of 1881. Do. 10 of 1882.
Legal Practitioners Act ...	18	1879	Do.	Amended, India Act 9 of 1884.
Do. do. Amendment.	9	1884	Do.	
Liability for Stamps	...	...	......	See Public Liability for Stamps.
Liability of Camp Followers ...	...	...	......	See Camp Followers.
Liability of Native Soldiers ...	5	1875	India.	
License	3	1878	Madras	Rep. in part, India Act 6 of 1880. Amended, Madras Act 3 of 1880.
	3	1880	Do.	
	6	1880	India.	
Limits—Zillahs	1	1865	Madras	Rep. in part, India Act 3 of 1873.
Limitation	15 8	1877 1880	India	Rep. in part, India Act 8 of 1880. Locally do. 5 of 1882. Amended, India Act 12 of 1879. Do. 5 of 1881.
Literary and other Societies, Registration of.	...	...	......	Registration.
Loans Land Improvement ...	...	...	......	Land Improvement.
Loans—Local Authorities ...	...	...	......	See Local Authorities Loan Act. Also Land Improvement Loans Act.
Loans—Public Works	...	...	......	See Local Authorities Loan Act.
Local Boards Act	5	1884	Madras.	
Local Authorities Loan Act ...	11	1879	India.	
Lunacy in Charter Courts ...	34	1858	Do.	Rep. in part, India Act 16 of 1874.
Lunacy in Mofussil Courts ...	35	1858	Do.	Rep. in part, India Act 14 of 1870.
Lunatic Asylums	36	1858	Do.	Rep. in part, India Act 16 of 1874.
Lunatics—Military	11	1877	Do.	
Lunatics—Property of Military.	14	1873	Do.	Rep. in part, India Act 16 of 1874.
Madras Civil Courts	...	...	......	See Courts.
Madras District Municipalities.	...	...	......	See Municipalities, Mofussil.
Madras Equitable Assurance Society.	...	...	......	See Society.
Madras Forests Act	5	1882	Madras.	
Madras Forests Act—Removing doubts regarding.	21	1882	India.	
Madras Harbour Dues	6	1882	Madras.	
Madras Irrigation and Canal Company.	16	1880	India.	
Madras Jails Act	5	1869	Madras.	Amended by Madras Act 7 of 1882.
Madras Jails Amendment Act.	7	1882	Do.	See Prisons.
Madras Local Fund Boards ...	...	...	......	See Local Boards.
Madras Municipality	...	...	......	See Municipality, Madras.
Madras Pier Act	...	...	......	See Pier, Madras.
Madras Police	...	...	......	See Police, Madras Town.
Madras Port Dues Enhancement.	4	1881	India.	
Madras Ports Police Act ...	1	1881	Madras.	
Madras Revenue Board Act ...	2	1883	Do.	See Board of Revenue.
Madras Rivers Conservancy ...	...	...	......	See Rivers, Conservancy.
Madras Town Police	...	...	......	See Police, Madras Town.
Madras University	...	...	......	See University, Madras.
Madras Town Revenue ...	...	...	......	See Revenue.
Madras Village Cess Extension Act.	1	1883	Madras.	
Magistrates—Third Class ... Magistrates—Second Class ... Magistrates—First Class ... Magistrates—Divisional ... Magistrates—District ... Magistrates—Honorary ... Magistrates—Presidency ... Magistrates—Special ...	10	1882	India.	
Magistrates—Cantonments	3 1	1859 1866	Do. ... ... Madras.	Rep. in part, India Act 16 of 1864. Do. 16 of 1874. Do. 12 of 1876. Locally Mad. Act 1 of 1866, s. 9.
Majority—Indian	9	1875	India.	
Malabar—Offensive Weapons ...	24	1854	Do.	Rep. in part, India Act 14 of 1870.
Malabar—Moplahs ...	20 7	1859 1869	Do. ... ... Madras.	Rep. in part, India Act 14 of 1870. Mad. Act 7 of 1869.
Malgoozarry Lands	26	1802	Madras Regulation ...	Rep. in part, Mad. Act 2 of 1864, s. 65.
Malgoozarry Sepoys	8	1817	Do. ...	Rep. in part, India Act 10 of 1861. Do. 12 of 1876.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Malversation	9	1822	Madras Regulation ...	Rep. in part, India Act 12 of 1876. Mad. Reg. 3 of 1823. Do. 7 of 1828, s. 5. Mad. Act 2 of 1869.
	3	1823	Do. ...	Rep. in part, India Act 12 of 1876. Mad. Reg. 7 of 1828. Mad. Act 2 of 1869.
	3	1832	Do.	
	36	1837	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874.
Marriage—Parsee	15	1865	Do.	Rep. in part, India Act 7 of 1870. Do. 14 of 1870. Do. 12 of 1876.
Marriage—Bramho	3	1872	Do.	Rep. in part, India Act 16 of 1874. Do. 12 of 1876.
Marriage Licenses—Validation of—granted to Ministers of religion under Act XXV of 1864.	15	1884	Do.	
Marriage—Christian	15	1872	Do.	Rep. in part, India Act 16 of 1874.
Married Women's Property ...	3	1874	Do.	Rep. in part, India Act 12 of 1876.
Measures	...	...	......	See Weights and Measures.
Merchant Seamen ...	1	1859	India	Rep. in part, India Act 15 of 1863. Do. 14 of 1870. Do. 16 of 1874. Do. 4 of 1875. Do. 12 of 1876. Do. 13 of 1876.
	13	1876	Do.	
Merchant Shipping ...	7	1880	Do.	Rep. in part, India Act 14 of 1882.
	5	1883	Do.	
Military Cantonments	...	...	......	See Cantonments.
Military Courts of Requests ...	...	...	......	See Courts.
Military Enforcement of Judgments.	...	...	......	Do.
Military Lunatics	...	...	......	See Lunatics.
Minors	9	1861	India.	
	21	1855	Do.	
	14	1858	Do.	
Minors—European, British ...	...	...	......	See European.
Mofussil Small Cause Courts ...	...	...	......	See Courts.
Mofussil Courts—Lunacy in ...	...	...	......	See Lunacy.
Mofussil Police	...	...	......	See Police.
Moplahs	...	...	......	See Malabar.
Municipality—Madras	1	1884	Madras	Amended Mad. Act 7 of 1884.
Do. do.	7	...	Do.	
Municipalities—Mofussil ...	4	1884	Do.	
Municipality—Cost of Police by	7	1878	Do.	
Municipal Taxation—Exemption from.	11	1881	India.	
Moonsifs—Village ...	4	1816	Madras Regulation.	Rep. in part, India Act 28 of 1855. Do. 7 of 1870. Do. 12 of 1876. Mad. Reg. 9 of 1828. Mad. Act 2 of 1869.
	4	1883	Madras.	Amended by Madras Act 4 of 1883.
Moonsifs—District ...	3	1873	India	Rep. in part, India Act 12 of 1873. Do. 19 of 1877.
	19	1877	Do.	
Mortgaged Estates	...	...	......	See Administration.
Mortgagees' Powers	...	...	......	See Trustees and Mortgagees' Powers.
Mutiny—Forfeiture of Property.	25	1857	India	Rep. in part, India Act 5 of 1869. Do. 9 of 1871.
Mutiny—Indemnity	34	1860	Do.	
Native Articles of War ...	...	...	......	See Articles of War, Native.
Native Christian Marriage ...	15	1872	India	Rep. in part, India Act 16 of 1874.
Native Christian Marriage, Dissolution of.	...	...	......	See Dissolution.
Native Coinage	...	...	......	See Coinage.
Native Labour—Contract ...	5	1866	Madras	Rep. in part, India Act 3 of 1876.
Native Passenger Ships ...	8	1876	India	Amended by India Act 17 of 1883.
Do. do. ...	17	1883	Do.	
Native Press	3	1882	Do.	
Native Servants ... / Native Soldiers ...	...	...	......	See Public Servants, Native.
Naturalization of Aliens ...	...	...	......	See Aliens.
Navigation Law	...	...	......	See Ships' Registry.
Negotiable Instruments Act ...	26	1881	India.	
Neilgherries—Assistant Commissioner.	...	...	......	See Courts and Commissioner.
Neilgherries—Game	...	...	......	See Game.
Newspapers Act	...	...	......	See Printing-presses and Newspapers.
Nicobar Islands	...	...	......	See Andaman.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Oaths—Judicial	10	1873	India	Rep. in part, India Act 12 of 1873. Do. 12 of 1876.
Obstructions in Fairways ...	...	...	......	See Fairways.
Occasional Increase to Police Force.	3	1882	Madras.	
Offensive Weapons	...	...	......	See Malabar.
Offices, Judicial—Appointment to.	16	1867	India.	
Officers—Judicial	18	1850	Do.	
Offices—Hereditary	6	1831	Madras Regulation ...	Rep. in part, India Act 24 of 1859. Do. 12 of 1876.
Official Seals	...	...	......	See Seals, Official.
Official Trustees	...	...	......	See Trustees, Official.
Opium	1	1878	India.	
Oriental Publications	...	...	......	See Publications, Oriental.
Punchayets—Village	5	1816	Madras Regulation ...	Rep. in part, India Act 28 of 1855. Do. 7 of 1870. Do. 12 of 1876. Mad. Reg. 9 of 1828.
Punchayets—Awards of ...	8	1840	India.	
Punchayets, Boundary ...	...	...	......	See Boundary.
Paper Currency—Indian ...	20	1882	India.	
Parsee—Marriage	...	...	......	See Marriage.
Passenger Ships' Act ...	8	1876	India.	
	17	1883	Do.	See Native Passenger Ships.
Patents	15	1859	Do.	Rep. in part, India Act 18 of 1869. See Inventions Do. 12 of 1876.
Patterns and Designs ...	13	1872	Do.	Rep. in part, India Act 16 of 1874.
Peace, Justices of	...	...	......	See Justices.
Penal Code	45	1860	India	Rep. in part, India Act 14 of 1870. Do. 27 of 1870. Do. 19 of 1872. Do. 10 of 1882. Amended, Do. 12 of 1881. Do. 8 of 1882.
	27	1870	Do.	Rep. in part, India Act 10 of 1872.
	19	1872	Do.	
	8	1882	Do.	
Penal Servitude	24	1855	Do.	Rep. in part, India Act 12 of 1867. Do. 14 of 1870. Do. 5 of 1871. Do. 16 of 1874. Do. 12 of 1876.
Pensions	23	1871	Do.	
Petroleum Act	8	1881	Do.	
Pier—Madras	5	1863	Madras	Rep. in part, India Act 12 of 1873.
	7	1871	Do.	
Pleaders	1	1846	India	Rep. in part, India Act 12 of 1876. Locally do. 20 of 1865, s. 3.
	20	1853	Do.	Rep. in part, India Act 14 of 1870. Locally do. 20 of 1865.
	14	1816	Madras Regulation.	Rep. in part, India Act 1 of 1846. Do. 10 of 1861. Do. 7 of 1870. Do. 10 of 1873. Do. 12 of 1876. Do. 10 of 1877. Mad. Act 2 of 1867. Do. 2 of 1869. Residue repealed by Madras Act 2 of 1882.
	18	1879	India.	
Police—Tanjore, Cauvaly ...	1	1816	Madras Regulation ...	Rep. in part, India Act 18 of 1861.
Police—Village ...	11	1816	Do. ...	Rep. in part, India Act 17 of 1862. Do. 12 of 1876. Mad. Reg. 9 of 1828.
	4	1821	Do. ...	Rep. in part, India Act 17 of 1862. Do. 12 of 1876.
Police—Madras Port	1	1881	Madras.	
Police—Mofussil ...	24	1859	India	Rep. in part, India Act 17 of 1862. Do. 14 of 1870. Do. 16 of 1874.
	5	1865	Madras	Supplemented by Madras Act 3 of 1882.
	1	1872	Do.	
Police—Madras Town ...	3	1862	Do.	
Police—Madras Town	8	1867	Do. ...	Rep. in part, India Act 16 of 1874. Do. 12 of 1875. Do. 4 of 1877. Do. 10 of 1881. Do. 10 of 1882. Mad. Act 5 of 1869. Amended by Madras Act 4 of 1879.
Police Force, Additional ...	3	1882	Do.	
Police—Municipality	...	...	......	See Municipality.
Police Superintendents ...	...	...	......	See Superintendents.
Port Police, Madras	...	...	......	See Police, Madras Port.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Port Rules	2	1872	Madras.	
Ports' Act—Indian ...	12	1875	India	Rep. in part, India Act 13 of 1878. Do. 7 of 1880. Do. 4 of 1881. Do. 8 of 1881. Amended, do. 17 of 1882.
	9	1879	Do.	
	17	1882	Do.	
	5	1883	Do.	
Port Dues	4	1881		
	12	1875		
Port Dues—Cocanada	...	...	......	See Madras Port Dues Enhancement. Cocanada Port Dues Act.
Portuguese Convention ...	4	1880	India.	
	17	1881	Do.	
Post Office	14	1866	Do.	Rep. in part, India Act 14 of 1870. Do. 12 of 1876. Amended, do. 3 of 1882.
Powers-of-Attorney ...	7	1882	Do.	
Preservation of Game in the Neilgherries.	...	...	......	See Game.
Presidency Banks	...	...	......	See Banks.
Presidency Small Cause Courts.	...	...	......	See Small Cause Courts.
Presidency Towns, Distress in.	...	...	......	See Distress.
Presses	...	...	......	See Printing-presses.
Printing-presses and Newspapers.	25	1867	India	Rep. in part, India Act 14 of 1870.
Prisons	5	1869	Madras ...	Rep. in part, India Act 12 of 1873. Amended by Madras Act, 7 of 1882, see Jails.
Prisoners	5	1871	India ...	Rep. in part, India Act 12 of 1873. Do. 16 of 1874. Amended, do. 9 of 1882.
	9	1882	Do.	
Prisoners, State	...	...	......	See State Prisoners.
Prisoners' Testimony	15	1869	India ...	Rep. in part, India Act 16 of 1874. Do. 10 of 1877. Locally, do. 7 of 1872, s. 78.
Probate and Administration ...	5	1881	Do.	
Procedure—Civil, High Court.	5	1802	Madras Regulation ...	Rep. in part, India Act 10 of 1861. Mad. Reg. 4 of 1806. Do. 15 of 1816, s. 5. Do. 8 of 1818. Mad. Act 2 of 1869.
Procedure—General, Civil ...	14	1882	India	Amended, India Act 15 of 1882.
Procedure—Criminal High Court.	10	1882	Do.	
Procedure—General, Criminal	10	1882	Do.	Amended by India Act 3 of 1884.
	3	1884	Do.	
Procedure—Criminal Presidency Magistrates.	4	1877	Do.	The whole Act is repealed by India Act 10 of 1882, except section 57.
	10	1882	Do.	Amended by India Act 3 of 1884.
Procedure—Village Magistrates	11	1816	Madras Regulation ...	Rep. in part, India Act 17 of 1862. Do. 12 of 1876. Mad. Reg. 9 of 1828.
Process—Revenue	3	1869	Madras.	
Profits and Improvements, English Law Cases.	...	...	......	See English Law Cases.
Promissory Notes ...	...	...	......	See Negotiable Instruments.
Property	...	...	......	See Transfer of Property; Forfeiture of Property; Married Women; Infant's Property, and Lunatics.
Protection of Inventions Act ...	16	1883	India.	
Providing for Occasional Increase to Police Force.	3	1882	Madras.	
Public Accountants	...	...	......	See Accountants.
Public Servants	37	1850	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874. Do. 12 of 1876.
Public Servants—Native ...	7	1822	Madras Regulation ...	Rep. in part, India Act 11 of 1864. Do. 16 of 1874. Mad. Act 2 of 1869.
Public Servants, High Court—Trade by.	15	1848	India	Rep. in part, India Act 12 of 1876.
Public Liability for Stamps ...	5	1831	Madras Regulation ...	Rep. in part, Mad. Act 2 of 1869.
Publications—Oriental ...	3	1882	India.	
Public Works Loan Act ...	...	...	......	See Local Authorities Loan.
Purchases from Soldiers ...	...	...	......	See Soldiers.
Railways	4	1879	India	Amended by India Act 4 of 1883.
	4	1883	Do.	
Records—Judicial	13	1802	Madras Regulation ...	Rep. in part, India Act 12 of 1876. Mad. Reg. 15 of 1816, s. 15. Do. 7 of 1822. Do. 9 of 1828. Mad. Act 2 of 1869.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Records—Destruction of ...	3	1879	India.	
Recruiting, Foreign	...	...	......	See Foreign.
Recusant Witness	...	...	......	See Witness.
Registration of Literary and other Societies.	21	1860	India	Rep. in part, India Act 16 of 1874.
Registration of Assurances ...	3	1877	Do.	Rep. in part, India Act 12 of 1879.
Registry of Ships	...	...	......	See Ships' Registry.
Religious Endowments ...	...	...	......	See Endowments.
Religious Societies Act ...	1	1880	India.	
Remarriage of Hindoo Widows.	...	...	......	See Widows.
Removing Doubts regarding Madras Forests Act.	...	...	......	See Madras Forests.
Rent Recovery	8	1865	Madras	Rep. in part, India Act 7 of 1870. Do. 12 of 1873. Mad. Act 2 of 1871.
Rent Recovery	2	1871	Do.	
Revenue Assessment	1	1876	Do.	
Requests, Court of	...	...	......	See Courts.
Revenue Board	...	...	......	See Madras Revenue Board Act, and Board of Revenue.
Revenue Commissioner ...	...	...	...	See Commissioner.
Revenue—Zemindarry Settlement.	25	1802	Madras Regulation ...	Rep. in part, Mad. Act 2 of 1869.
Revenue of Madras Town ...	12	1851	India	Rep. in part, Mad. Act 6 of 1867.
Revenue Process ...	...	...	......	See Process, Revenue.
Revenue Recovery—Town ...	6	1867	Madras	Rep. in part, India Act 12 of 1873.
Revenue Recovery—Mofussil ...	2	1864	Do. ...	Rep. in part, India Act 12 of 1873. Amended Madras Act 3 of 1884.
Rights of Cultivators	4	1822	Madras Regulation.	
Rivers Conservancy	6	1884	Madras.	
Roads and Bridges, Tolls on ...	...	...	......	See Tolls.
Salt	1	1805	Madras ...	Rep. in part, India Act 6 of 1844, s. 42. Do. 12 of 1876. Mad. Reg. 2 of 1818. Do. 5 of 1831. Mad. Act 2 of 1869. Modified, India Act 17 of 1840. Rep. locally (as to districts to which this Act may be extended), Mad. Act 6 of 1871. Rep. in part, Mad. Act 1 of 1882.
Salt Excise	6	1871	Do.	Rep. in part, Mad. Act 1 of 1882.
Salt Duty	12	1882	India	Amended India Act 20 of 1884.
Salt Laws Amendment ...	1	1882	Madras	Amended, Mad. Act 4 of 1882.
	4	1882	Do.	
Salt—Powers of Commissioner.	6	1878	Do.	
Salt Revenue Commissioner ...	...	...	......	See Commissioner.
Savings' Banks, Government ...	...	...	......	See Banks, Government Savings'.
Suttee—Widows	...	...	......	See Widows.
Scheduled Districts	14	1874	India	Rep. in part, India Act 19 of 1879. Do. 14 of 1881, s. 14. Do. 25 of 1881, s. 4.
Sea Customs	...	...	......	Sea Customs.
Seals—Government	3	1862	India.	
Seals—Official	6	1865	Madras	Rep. in part, India Act 12 of 1873.
Secretaries to Government ...	2	1834	India.	
Securities—Government ...	...	...	......	See Government Securities.
Securities—Indian ...	...	...	......	Do. do.
Securities in deposit in High Courts, transferred to Government.	25	1866	India	Rep. in part, India Act 24 of 1867. Do. 16 of 1874. Do. 12 of 1876.
Sepoys—Malgoozarry	...	...	......	See Malgoozarry.
Servant, Public	...	...	......	See Public Servants, Public Servants—Native.
Servitude, Penal	...	...	......	See Penal Servitude.
Sheriffs' Fees	8	1852	India.	
Ships' Registry—Navigation Law.	10	1841	Do.	Rep. in part, India Act 11 of 1850. Do. 16 of 1874. Do. 4 of 1875, s. 30.
	11	1850	Do.	Rep. in part, India Act 14 of 1870.
Slavery	5	1843	Do.	Rep. in part, India Act 16 of 1874.
Small Cause Courts—Presidency.	15	1882	Do.	
Small Cause Courts—Mofussil.	...	...	......	See Courts.
Small Cause Judges	...	...	......	See Judges.
Society—Madras Equitable Assurance.	6	1869	Madras.	
Societies—Religious	...	...	......	See Religious Societies.
Soldiers, European, Desertion by.	...	...	......	See Desertion.
Soldiers—Purchases from ...	14	1832	Madras Regulation ...	Rep. in part, India Act 12 of 1876.
Specific Relief	1	1877	India	Rep. in part in certain localities, India Act 2 of 1882. Do. 4 of 1882.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Spirits used in Manufactures, Excise on.	...	...	......	See Excise.
Stage Carriages ...	16 16	1861 1876	India ... ... Do.	Rep. in part, India Act 14 of 1870. Do. 16 of 1876.
Stamps	1	1879	Do.	Rep. in part, India Act 16 of 1874. Do. 12 of 1876.
State Prisoners ...	2 34	1819 1850	Madras Regulation ... India.	
Steam Ships Act—Indian ...	7	1884	Do.	
Steam Vessels Act—Inland ...	6	1884	Do.	
Straits Emigration	...	...	......	See Emigration, Straits.
Sub-Collectors	...	...	......	See Collectors.
Subjects—British	...	...	......	See European.
Sub-Judges	...	...	......	Judges—Sub.
Succession, Collection of Debts in cases of.	...	...	......	See Collection of Debts.
Succession Act	10	1865	India	Rep. in part, India Act 24 of 1867. Do. 7 of 1870. Do. 15 of 1877. Amended do. 6 of 1881.
Succession Act (Probates and Letters of Administration.)	13 2	1875 1877	Do. ... ... Do.	Amended, India Act 2 of 1877.
Succession—Curators in cases of.	...	...	......	See Curators.
Superintendents—Police, Governor-General's Camp.	26	1836	India	Rep. in part, India Act 16 of 1874.
Tahsildars	7	1839	Do.	Rep. in part, India Act 14 of 1870. Do. 12 of 1873.
Tanjore Police	...	...	......	See Police, Tanjore.
Tariff	11	1882	India.	
Telegraph	1	1876	Do.	
Testimony, Prisoners' ...	...	...	......	See Prisoners' Testimony.
Title-deeds to Inams ...	...	...	......	See Inams.
Titles to certain unregistered instruments of partition relating to immovable property in Madras.	2	1884	India.	
Tolls—Roads and Bridges	8	1851	Do. ...	Rep. in part, India Act 14 of 1870. Do. 12 of 1876. in part locally, India Act 15 of 1864.
	15	1864	Do.	
	2	1868	Madras	Rep. locally, Mad. Act 4 of 1871, s. 2.
	4	1871	Do.	Rep. in part, Mad. Act 1 of 1878.
	1	1878	Do.	
Tolls—Canals and Ferries ...	1	1870	Do.	Rep. in part, Mad. Act 4 of 1878.
Do. do. ...	4	1878	Do.	
Towns' Improvement Act ...	...	...	......	See Improvement.
Trade by Public Servants, High Court.	...	...	......	See Public Servants, High Court.
Trade, Foreign	...	...	......	See Foreign.
Trading Companies ...	...	...	......	See Companies.
Transfer of Property Act ...	4	1882	India.	
Treasure Trove Act ...	6	1878	Do.	
Tribes, Criminal	...	...	......	See Criminal Tribes.
Trustees—Official	17	1864	India	Rep. in part, India Act 14 of 1870. Do. 12 of 1876.
Trustee Act	27	1866	Do.	Rep. in part, India Act 14 of 1870. Do. 16 of 1874. in certain localities, India Act 4 of 1882.
	2	1882	Do.	
Trustees and Mortgagees' Powers.	28	1866	Do.	Rep. in part, India Act 16 of 1874. in certain localities, India Act 2 of 1882. India Act 7 of 1882, s. 6.
	2	1882	Do.	
Trusts Act	2	1882	Do.	
Unclaimed Dividends in Estates of Insolvents.	...	...	......	See Dividends.
Uncovenanted Agency—Madras	7	1857	India.	
University—Madras	27	1857	Do.	Rep. in part, India Act 12 of 1876.
Universities	47 1	1860 1884	Do. Do.	
Unregistered Instruments of Partition.	2	1884	Do.	See Titles.
Usury Laws	28	1855	Do.	Rep. in part, India Act 14 of 1870.
Vagrancy—European	9	1874	Do.	Rep. in part, India Act 1 of 1879.
Village Cess	4	1864	Madras.	
Village Cess Extension Act ...	1	1883	Do.	
Village Magistrates' Procedure.	...	...	......	See Procedure—Village Magistrates.
Village Moonsifs	4	1816	Madras Regulation	Rep. in part, India Act 28 of 1855. Do. 7 of 1870. Do. 12 of 1876. Mad. Reg. 9 of 1828. Mad. Act 2 of 1869. Amended do. 4 of 1883.
Village Moonsifs Jurisdiction Act.	4	1883	Madras	See Moonsifs—Village.

Name of Act.	Number.	Year.	Legislating authority.	Whether amended or not.
Village Punchayet	5	1816	Madras Regulation ...	Rep. in part, India Act 28 of 1855. Do. 7 of 1870. Do. 12 of 1876. Mad. Reg. 9 of 1828.
Village Police	11	1816	Do. ...	Rep. in India Act 17 of 1862. Do. 12 of 1876. Mad. Reg. 9 of 1828.
Vizagapatam	24	1839	India	Rep. in part, India Act 14 of 1870. Do. 16 of 1874. Mad. Act 1 of 1865.
Volunteers	20	1869	Do.	Rep. in part, India Act 14 of 1870. Do. 9 of 1871. Do. 16 of 1874.
Wards	21	1855	Do.	See Minors and Court of Wards.
Waste Land—Claims to ...	23	1863	Do.	Rep. in part, India Act 9 of 1871.
Weapons, Offensive	...	...	......	See Malabar.
Weights and Measures ...	31	1871	India.	
Widows—Suttee	1	1830	Madras Regulation ...	Rep. in part, India Act 12 of 1876.
Widows—Remarriage of Hindoo	15	1856	India.	
Wills—Hindoo	5	1829	Madras Regulation ...	Rep. in part, India Act 12 of 1876. Mad. Act 2 of 1869.
Wills—Hindoo—before 1866 ...	25	1838	India	Rep. (except as to certain Wills), India Act 8 of 1868.
Wills—Hindoo	21	1870	Do.	Rep. in part and amended, India Act 5 of 1881, s. 154.
Witness—Recusant	10	1855	Do.	Rep. in part, India Act 10 of 1861. Do. 12 of 1873.
Women's Property	...	...	......	See Married Women.
Workmen and Employers—Disputes between.	9	1860	India	Rep. in part, India Act 9 of 1871.
Zemindarry Settlement ...	...	...	......	See Revenue—Zemindarry Settlement.
Zillahs—Limits	...	...	......	See Limits—Zillahs.

APPENDIX No. LIV.

LAW UNDER SUBJECT-HEADS RELATING TO MADRAS ADMINISTRATIVE MACHINERY.

NOTE.—*These references are taken from the Index to the Enactments relating to India published under the authority of the Government of India, with modifications.*

ABKARRY.

(1) *Madras Town and Suburbs.*

Collector of Madras, to superintend, under control of Board of Revenue.	India Act XIX of 1852, s. 2.
powers of, as to ordering search and arrest ..	India Act XIX of 1852, s. 20.
powers of, as to punishment of contempt ..	India Act XIX of 1852, s. 39.
extent of local jurisdiction of	India Act XIX of 1852, ss. 2, 40.
	Mad. Act V of 1879, s. 2 (i).
Officers, appointment of	India Act XIX of 1852, s. 3.
powers of, as to search, inspection, seizure, &c.	India Act XIX of 1852, ss. 17—19, 22.
as to arrest	India Act XIX of 1852, s. 22.
	India Act III of 1856, s. 2.
obstruction of or giving false information to	India Act XIX of 1852, ss. 23, 24.
offences by	India Act XIX of 1852, ss. 25, 26, 29, 30.
police to assist	India Act XIX of 1852, s. 21.
suits against and prosecutions of, place of trial for, and special rules regarding.	India Act XIX of 1852, s. 38.
Retail sale of spirituous or fermented liquors :—	
Definition of	India Act XIX of 1852, ss. 5, 5A.
	Mad. Act V of 1879, s. 2 (ii).
Licenses for, form, grant, and withdrawal of duty on ..	India Act XIX of 1852, ss. 4, 6, 8, 9.
recovery of arrears on, and punishment for breach of.	India Act XIX of 1852, ss. 13, 14.
Punishment for sale or possession of country liquor in excess of amount allowed on.	India Act XIX of 1852, ss. 7, 15, 16.
Tax on places used for	Mad. Act V of 1878, ss. 183—188.
Importation of spirituous or fermented liquors, special regulation of	India Act XIX of 1852, ss. 10, 11.
European spirits, provisions regarding manufacture of	Mad. Act III of 1864, ss. 12—18.
	Mad. Act V of 1879, ss. 3—5.
spirits manufactured in India after European method to be deemed.	India Act XIX of 1852, s. 5A.
	Mad. Act V of 1879, s. 2 (ii).
Offences relating to, definition and punishment of	India Act XIX of 1852, ss. 14—16, 18.
enhanced punishment on second conviction of ..	India Act XIX of 1852, s. 34.
Fines, adjudication and recovery of	India Act XIX of 1852, ss. 31, 33, 37.
disposal of, in rewards, &c.	India Act XIX of 1852, ss. 35, 36.
Power to exclude suburbs from Presidency law	India Act XIX of 1852, s. 2.
	Mad. Act V of 1879, s. 2 (i).
Right of Government to revenue from, reserved	Mad. Reg. XXV of 1802, s. 4.

(2) *Mofussil.*

Manufacture and sale of liquors :—	
Restrictions on general	Mad. Act III of 1864, s. 3.
not to apply to manufacture for home consumption.	Mad. Act III of 1864, s. 28.
not to apply to spirits used for medical purpose.	Mad. Act III of 1864, s. 27.
Exclusive privilege of, retention of by Government or assignment by farm or licenses.	Mad. Reg. XXV of 1802, s. 4.
	Mad. Act III of 1864, s. 4.
renters of, rules as to licenses to and engagements by.	Mad. Act III of 1864, ss. 5—7.
engagements by sub-renters or licensees of.	Mad. Act III of 1864, ss. 8, 9.
	Mad. Act V of 1879, s. 4 (ii).
recovery of arrears due to or by.	Mad. Act III of 1864, ss. 10, 11.
	Mad. Act V of 1879, s. 4 (iii), (iv).
Licenses for, grant and contents of	Mad. Act III of 1864, ss. 4, 13.
penalties for breach of	Mad. Act III of 1864, ss. 10, 20.
to be shown on demand	Mad. Act III of 1864, s. 25.
Without license, penalty for	Mad. Act III of 1864, s. 21.
Prohibition of unlicensed possession of instruments, &c., for.	Mad. Act III of 1864, s. 23A.
	Mad. Act V of 1879, s. 4 (vii).
Licenses for distillation by European process, fee for and provisions of	Mad. Act III of 1864, s. 12.
penalty for breach of.	Mad. Act III of 1864, s. 18.
Drawers of toddy not liable to pay tax to Abkarry renter	Mad. Act III of 1864, s. 29.
Possession of conveyance of liquors :—	
Restrictions on, without permit	Mad. Act III of 1864, ss. 14, 15.
confiscation and penalty for breach of ..	Mad. Act III of 1864, ss. 17, 22.
	Mad. Act V of 1879, s. 4 (v).
Permit for, by whom issuable, and effect of	Mad. Act III of 1864, ss. 14—16.

Powers of Magistrate and Police as to search, inspection, seizure, &c.	Mad. Act III of 1864, ss. 23—26, 26A.
	Mad. Act V of 1879, s. 4 (viii), (ix).
Heads of villages to search for and seize implements for distillation and illicit liquors and to assist Abkarry officers.	Mad. Act III of 1864, ss. 24B, 24C.
	Mad. Act V of 1879, s. 4 (viii).
Landholders and servants of Government, Court of Wards, Municipal and Local Funds to give information of illicit manufacture of spirits.	Mad. Act III of 1864, ss. 24C, 24D, 24E.
	Mad. Act V of 1879, s. 4 (viii).
Penalty for vexatious proceedings for search and seizure	Mad. Act III of 1864, s. 26A.
	Mad. Act V of 1879, s. 4 (ix).
Penalties for offences, how recovered and disposed of	Mad. Act III of 1864, ss. 26B, 30—32.
	Mad. Act V of 1879, s. 4 (vi), (ix).
Restrictions on suits or prosecutions for acts done under law	Mad. Act III of 1864, s. 30A.
	Mad. Act V of 1879, s. 4 (x).
Power to bring suburbs of Madras town under law	India Act XIX of 1852, s. 2.
	Mad. Act V of 1879, s. 2 (i).

ADMINISTRATOR-GENERAL.

(1) *Office and Remuneration.*

Qualification and appointment of, for each Presidency	India Act II of 1874, ss. 4—6.
Not an officer of High Court	India Act II of 1874, s. 7.
Not to hold other office without sanction of Government, not to trade.	India Act II of 1874, ss. 9, 10.
May be Official Trustee	India Act XVII of 1864, s. 6.
	India Act II of 1874, s. 9.
Security to be given by, to Government, but not to Court	India Act II of 1874, ss. 11, 12.
Verification of petitions not required from	India Act II of 1874, s. 12.
Officiating appointment, powers and duties of	India Act II of 1874, s. 13.
Establishment, expenses of	India Act II of 1874, s. 42.
Records of, rules for destruction of	India Act III of 1879, s. 3.
Commission, on temporary grant of administration to	India Act II of 1874, s. 18.
on grant of certificate by	India Act II of 1874, s. 41.
on grant of administration or probate to	India Act II of 1874, ss. 52, 53, 55, 55A.
	India Act IX of 1881, s. 7.
	26 & 27 Vic., c. 57, s. 21.
how and when payable	India Act II of 1874, ss. 54, 59.
on revocation of letters of administration granted to ..	India Act II of 1874, s. 27.
Not affected by law prohibiting trustee from claiming remuneration.	India Act II of 1882, s. 50.

(2) *Powers and duties.*

(*a*) *Grant of Probate and Administration to.*

Local extent of powers	India Act II of 1874, s. 3.
Jurisdiction of High Court on all petitions for	India Act II of 1874, s. 14.
Administration, title to, in preference to creditor, non-universal legatee or friend.	India Act II of 1874, s. 15.
privileges of official liquidator not to affect	India Act VI of 1882, s. 144 (*g*).
to estates of persons other than Hindoos, Parsees, Mahomedans, Booddhists, &c.	India Act II of 1874, ss. 16, 20.
	India Act IX of 1881, s. 2.
of military officers and soldiers	India Act II of 1874, ss. 21, 22, 65.
	26 & 27 Vic., c. 57, ss. 9, 21.
of Hindoos, Mahomedans, Parsees, and Booddhists in Presidency towns.	India Act II of 1874, s. 17.
	India Act IX of 1881, s. 2.
temporary, pending determination of right	India Act II of 1874, s. 18.
revocation of, on grant of probate to executor or administration to next-of-kin and effect thereof.	India Act II of 1874, ss. 19, 24, 25, 26.
costs of, before revocation	India Act II of 1874, ss. 19, 27.
and probate to be granted by name of office	India Act II of 1874, ss. 29, 30.
grant of at any time	India Act II of 1874, s. 23.
effect of, and local extent of	India Act II of 1874, s. 23A.
	India Act IX of 1881, s. 3.
transfer of, from private executor or administrator—	
when authorized	India Act II of 1874, s. 31.
stamp duty on	India Act I of 1879, ss. 4, 5, sch. I, No. 60 (*c*).
Committee of adjustment may deliver effects to	26 & 27 Vic., c. 57, s. 9.
	44 & 45 Vic., c. 57, s. 51.
Duties of, as to preferential charges, &c.	26 & 27 Vic., c. 57, s. 21.
Remittances by	26 & 27 Vic., c. 57, s. 21.
Powers and liability as to distribution of assets among creditors ..	India Act II of 1874, ss. 28, 35.
	India Act IX of 1881, s. 4.
Vesting of estates in successor	India Act II of 1874, s. 33.
Power to appoint Official Trustee of assets carried to separate account	India Act II of 1874, s. 32.

(*b*) *Grant of Certificates of Administration by.*

To executor or next-of-kin	India Act II of 1874, s. 36.
	India Act IX of 1881, s. 5.
To creditors	India Act II of 1874, s. 37.
	India Act IX of 1881, s. 5
Effect of	India Act II of 1874, s. 39.
Proof of claimant's title to	India Act II of 1874, s. 38.
	India Act IX of 1881, s. 6.
Power to take out letters of administration after	India Act II of 1874, s. 40.
Fee for	India Act II of 1874, s. 41.

(*c*) *Accounts.*

To be kept separate for each estate	India Act II of 1874, s. 43.
To be open to inspection	India Act II of 1874, s. 43.
Schedules of, to be filed half-yearly in High Court	India Act II of 1874, s. 44.
copies of to be delivered to Governor-General	India Act II of 1874, s. 44.
costs of making	India Act II of 1874, s. 48.
Audit of, and powers and duties of auditors	India Act II of 1874, ss.45—49.
Procedure to recover deficit from, in case of false	India Act II of 1874, ss. 50, 51.

(3) *Miscellaneous.*

Suits by and against, to be brought in name of office	India Act II of 1874, s. 34.
not to abate by death or removal	India Act II of 1874, s. 34.
Power of Government to make rules for guidance	India Act II of 1874, ss. 57, 58.
Unclaimed assets how to be dealt with	India Act II of 1874, s. 62.
subsequent claim to	India Act II of 1874, s. 63.
District Judge to take charge of certain estates and report to	India Act II of 1874, s. 64. India Act IX of 1881, s. 2.
Rights and duties of, unaffected by Hindoo Wills Act	India Act XXI of 1870, s. 5.
Indian Succession Act and Indian Companies Act.	India Act II of 1874, s. 66.
Probate and Administration Act.	India Act V of 1881, s. 149.
Registration of document executed by, in official capacity	India Act III of 1877, s. 88.
Effect of false statement in proceedings under Administrator-General's Act.	India Act II of 1874, s. 61.
Power of, to examine persons on oath	India Act II of 1874, s. 60A. India Act IX of 1881, s. 8.

ADVOCATE-GENERAL.

Appointment of	16 & 17 Vic., c. 95, s. 29.
To be appointed by Crown	21 & 22 Vic., c. 106, s. 29.
What officers to exercise powers of	India Act X of 1882, s. 4 (*k*).
Right of, to conduct prosecution in Magistrate's Court without permission.	India Act X of 1882, s. 495.
Power of, to exhibit informations and prefer charges in chartered High Courts.	India Act X of 1875, s. 144.
to withdraw from prosecution	India Act X of 1882, s. 333.
Suits relating to charities to be instituted by, or with written consent of	India Act XIV of 1882, s. 539.
May apply to High Court for order of enquiry as to persons alleged to be insane.	India Act XXXIV of 1858, s. 2.
declaring breach of special conditions on which patent has been granted.	India Act XV of 1859, s. 26.
Power of, to proceed against defaulting Administrator-General	India Act II of 1874, s. 50.
Proceedings by, to recover defalcations by Official Trustee	India Act XVII of 1864, s. 28.
May file informations for Crown debts	16 & 17 Vic., c. 95, s. 111.

AGRICULTURAL LEASE.

Term of, in absence of contract on local usage	India Act IV of 1882, s. 106.
Method of terminating by notice	India Act IV of 1882, s. 106.
Provisions of Transfer of Property Act not applicable to	India Act IV of 1882, ss. 37, 117.
may be extended to	India Act IV of 1882, s. 117.

ARCHBISHOP.

Of Canterbury or York may ordain specially for India	59 Geo. III, c. 60, s. 1.
may commission two Indian Bishops to consecrate a third.	3 & 4 Wm. IV, c. 85, s. 99.

ARCHDEACON.

For Madras, to be appointed	53 Geo. III, c. 155, s. 49.
Appointed Bishop of Madras, residence of	3 & 4 Wm. IV, c. 85, s. 98.
Salary of	53 Geo. III, c. 155, ss. 49, 50. 3 & 4 Wm. IV, c. 85, s. 101.
Power of Secretary of State for India to fix and alter	43 Vic., c. 3, s. 3.
to fix, alter or abolish passage-money and allowances of.	53 Geo. III, c. 155, s. 89. 43 Vic., c. 3, s. 3.

ARREARS OF LAND REVENUE.

(1) *Arrears of Revenue and Taxes.*

Excise arrears	Mad. Act III of 1864, s. 10. Mad. Act V of 1879, s. 4 (*iii*).
Arrears of License tax	Mad. Act III of 1878, s. 20.
Forest dues	India Act VII of 1878, s. 81.
Opium revenue	India Act I of 1878, ss. 23—25.
Local and additional rates	Mad. Act IV of 1871, s. 49.
Village cess	Mad. Act IV of 1864, s. 4.
Police assessment in Tanjore	Mad. Reg. I of 1816, s. 6.
Salt duty, &c.	Mad. Act VI of 1871, s. 21.

(2) *Rents, &c.*

Fees, &c., under Elephants' Preservation Act	India Act VI of 1879, s. 10.

(3) *Miscellaneous Dues and Charges.*

Water-rates	Mad. Act VII of 1865, s. 2.
Sums due from public accountants, revenue officers and their sureties.	Mad. Reg. IX of 1822, s. 6. India Act XII of 1850, ss. 4, 5.
Moneys payable to Government under Madras Forest Act	Mad. Act V of 1882, s. 66.
Advances for forced labour for private work	India Act I of 1858, ss. 4, 5.
Decree of Collector in summary suit	Mad. Act VIII of 1865, s. 70.
Interest on arrears	Mad. Act II of 1864, ss. 17, 53—55. Mad. Act VI of 1867, ss. 5, 28—30.

(4) *Fines.*

For refusal of customary labour	India Act I of 1858, s. 6.
For non-attendance of assessors to decide claim to hereditary office.	Mad. Reg. VI of 1831, s. 4.

(5) *Costs.*

Payable in respect of revenue proceedings	Mad. Act II of 1864, ss. 52—55.
or repair of damage to canal or navigable channel ...	Mad. Act I of 1870, s. 10.

BOARD OF REVENUE.

(1) *General.*

Members of, to be Civil Servants	24 & 25 Vic., c. 54.
Secretaries to, to be Civil Servants	24 & 25 Vic., c. 54.
Duties and powers of, in relation to stamps	India Act I of 1879, s. 3 (7).
to rules for destruction of records of Revenue Courts.	India Act III of 1879, s. 7.
Exemption from Court-fee of certain applications to, relating to settlement.	India Act VII of 1870, s. 19 (ix).

(2) *Special for Madras.*

Duties of, as to control and superintendence of public revenues, and of persons employed in executive administration thereof.	Mad. Reg. I of 1803, ss. 4, 5, 33—38, 48, 52—54, 57.
General rules for conduct of business of	Mad. Reg. I of 1803, ss. 6—23.
President of, powers and duties of	Mad. Reg. I of 1803, ss. 20, 24—32.
Prohibition against trading by, or borrowing from or lending to subordinates, &c.	Mad. Reg. I of 1803, s. 40.
Powers of, as to deputation of member or subordinate	Mad. Reg. I of 1803, ss. 49, 50. India Act X of 1849, ss. 1—4.
To have powers of Court of Wards	Mad. Reg. V of 1804, s. 2.
Not empowered to make or confirm grants of land	Mad. Reg. I of 1803, s. 42.
Power of, to prescribe form of register of revenue-paying lands ..	Mad. Reg. XXVI of 1802, s. 2.
to reduce number of curnums	Mad. Reg. XXIX of 1803, s. 9.
as to remission and suspension of collection of land revenue	Mad. Reg. I of 1803, ss. 55, 56.
as to grant of Tuccavy	Mad. Reg. I of 1803, s. 51.
Controlling and appellate powers of, as to fixing boundary-marks, &c.	India Act XXVIII of 1860, ss. 2, 26.
as to orders of Collector regarding village cess.	Mad. Act IV of 1864, ss. 9, 10.
as to assessment of land revenue in Madras town.	India Act XII of 1851, ss. 3, 6, 12, 14.
of sub-divided estates	Mad. Act II of 1864, ss. 45, 46. Mad. Act I of 1876, ss. 27.
as to Abkarry revenue in Madras town and suburbs.	India Act XIX of 1852, ss. 2, 6, 30, 35, 39.
in connection with salt revenue	Mad. Reg. I of 1805, ss. 4, 5. Mad. Act VI of 1871, ss. 3, 6, 26.
in reference to trade licenses ..	Mad. Act III of 1878, ss. 6, 16.
Superintendence of charitable endowments and public buildings and escheats vested in.	Mad. Reg. VII of 1817.
Power of, to prescribe rules as to, and forms of Abkarry licenses ..	Mad. Act III of 1864, ss. 5—8, 9, 12, 13. Mad. Act V of 1879, s. 4 (ii).
to declare illegal, manufacture of spirits for home consumption.	Mad. Act III of 1864, s. 28.

BISHOP.

(1) *General.*

Acts to enable East Indian, under commission, to perform episcopal functions.	15 & 16 Vic., c. 52. 16 & 17 Vic., c. 49.
Ordinations by	15 & 16 Vic., c. 52, s. 2.
Power of Archbishop to dispense with oath on consecration of ..	37 & 38 Vic., c. 77, s. 12.
Power of, to act in England	37 & 38 Vic., c. 77, ss. 7, 8, 13.
Rules for grant of leave of absence to	5 & 6 Vic., c. 119. 34 & 35 Vic., c. 62. 37 Vic., c. 13.
Consecration of, resident in India appointed to be	3 & 4 Wm. IV, c. 85, s. 99.
Warrant for letters patent respecting bishopric	53 Geo. III, c. 155, s. 53.

(2) *Madras.*

Power to appoint	3 & 4 Wm. IV, c. 85, s. 89.
Salaries of	3 & 4 Wm. IV, c. 85, ss. 89, 90.
power of Secretary of State for India to fix and alter ..	43 Vic., c. 3, s. 3.
Passage-money for	3 & 4 Wm. IV, c. 85, s. 91.
power of Secretary of State for India to fix, alter, abolish allowances for.	43 Vic., c. 3, s. 3.
Jurisdiction of	3 & 4 Wm. IV, c. 85, s. 92.
Crown may limit functions and jurisdiction of	3 & 4 Wm. IV, c. 85, s. 93.
Pensions of	3 & 4 Wm. IV, c. 85, s. 96.
Payment to representatives of	3 & 4 Wm. IV, c. 85, s. 97.
Translations of	3 & 4 Wm. IV, c. 85, s. 98.
Expenses of visitations of	3 & 4 Wm. IV, c. 85, s. 100.
Letters patent respecting Bishopric of Madras	13th June 1835.

BOOKS.

Registration of memorandum of, in official catalogue and effect thereof ..	India Act XXV of 1867, s. 18.
Power of Government to exempt any class of, from rules as to registration.	India Act XXV of 1867, s. 21.
Restriction on importation of, printed in infringement of copyright ..	India Act VIII of 1878, s. 18 (*a*). 5 & 6 Vic., c. 45, s. 17. 39 & 40 Vic., c. 36, s. 42.
of obscene books	India Act VIII of 1878, s. 18 (*c*).
of vernacular books	India Act IX of 1878, s. 14.
Power of Port officer to seize illegally imported	India Act III of 1882, s. 3.
Legislatures at Madras are not to affect, without Governor-General's sanction.	24 & 25 Vic., c. 67, s. 43.

CANTONMENT MAGISTRATE.

Appointment of, and status of, as Magistrate of a Division	India Act III of 1880, s. 3. Mad. Act I of 1866, ss. 3, 4.
Subject to control of Magistrate of District— in respect of trial of ordinary offences	India Act III of 1880, ss 3, 12. Mad. Act I of 1866, s. 3.
not in respect of trial of breaches of cantonment rules and regulations ..	India Act III of 1880, s. 28. Mad. Act I of 1866, s. 20.
Subordinate to Magistrate of District, Sessions Judge and High Court in respect of revision.	India Act III of 1880, s. 28.
Civil jurisdiction of, as Judge of Court of Small Causes	India Act III of 1880, ss. 5—7. India Act XI of 1865, ss. 48, 49. Mad. Act I of 1866, ss. 7—9, 39.
Jurisdiction of, as to punishment of certain camp-followers, artificers and labourers for breach of standing orders.	Mad. Act I of 1866, s. 6.
not to affect jurisdiction of Courts-martial or Commanding Officers under Articles of War or Mutiny Act.	India Act III of 1880, s. 34. Mad. Act I of 1866, s. 37.
not affected by Indian Articles of War	India Act V of 1869, Part I (*f*).
In Native State or Non-Regulation Province, power to declare, Court of Session and High Court for.	Mad. Act I of 1866, s. 39.
To be Registrar or Sub-Registrar within cantonment limits	India Act III of 1877, s. 9.
Cantonment rules to be hung up in office of	India Act III of 1880, ss. 26. Mad. Act I of 1866, s. 18.
Assistant, jurisdiction of, in criminal matters	India Act III of 1880, s. 4. Mad. Act I of 1866, ss. 5, 6, 20.
in civil matters	India Act III of 1880, s. 6. Mad. Act I of 1866, s. 10.

CESSES.

Imposed on land, recoverable as arrears of land revenue	Mad. Act II of 1864, s. 52.

CHARITABLE ENDOWMENTS.

Superintendence of, vested in Board of Revenue, Local Agency of Collector, &c.	Mad. Reg. VII of 1817, ss. 2, 9, 15.
Trustees, managers, &c., of, nomination and appointment of	Mad. Reg. VII of 1817, ss. 10—14. Mad. Reg. VI of 1831, s. 8.
liable to punishment for embezzlement or fraud.	Mad. Reg. VII of 1817, s. 16.
Trusts relating to, not subject to general Trust Law	India Act II of 1882, s. 1.

CIVIL COURTS.

(1) *General.*

(*a*) *Jurisdiction.*

No person exempt from, by reason of descent or place of birth ..	India Act XIV of 1882, s. 10.
In respect of suits against military men	44 & 45 Vic., c. 58, ss. 144, 151.
No suits exempt from, unless barred by express enactment	India Act XIV of 1882, s. 11.
When and where barred as to, suits by seamen for wages	India Act I of 1859, s. 57.
as to claims to pensions and grants of money or land revenue.	India Act XXIII of 1871, ss. 4–7.
in regard to forfeitures and attachments of property.	India Act IX of 1859, s. 16.
as to compensation, &c., for acts relating to ferries.	India Act XVII of 1878, ss. 1, 3, 4.
as to orders of Magistrates for removal of public nuisances.	India Act X of 1882, ss. 133, 140, 142.
in regard to decisions of Collector under Treasure Trove Act.	India Act VI of 1878, s. 17.
Powers of, in reference to education of minors in charge	India Act XL of 1858, s. 25.

(*b*) *Procedure.*

Power of, to summon witnesses of its own accord	India Act XIV of 1882, s. 171.
to examine any person present in Court	India Act XIV of 1882, s. 165.
to recall and examine witnesses	India Act XIV of 1882, s. 193.
to summon witnesses in course of execution proceedings ..	India Act XIV of 1882, ss. 267, 287.
as to substitution or addition of parties in original suit ..	India Act XIV of 1882, ss. 27, 32.
in appeal ..	India Act XIV of 1882, s. 559.
Forms for use of, prescribed	India Act XIV of 1882, ss. 639, 644, sch. IV.
Method of procuring attendance in, of witness confined in jail ..	India Act XV of 1869, ss. 4–11.
Guardian or manager of minor or lunatic appointed by, saved from general rules respecting suits by or against minors and lunatics.	India Act XIV of 1882, s. 464.
Court-fee on application to subordinate, in suit or case under Rs. 50 in value.	India Act VII of 1870, s. 6, sch. II, No. 1 (*a*).
not specially provided for	India Act VII of 1870, s. 6, sch. II, No. 1 (*a*).
Miscellaneous order of, suit to set aside, limitation of time for ..	India Act XV of 1877, s. 4, sch. II, No. 13.

(*c*) *Miscellaneous.*

Forest settlement officer to have certain powers of	India Act VII of 1878, s. 8 (*b*).
Investiture of forest officer with powers of, as to compelling attendance of witnesses and production of documents.	India Act VII of 1878, s. 71 (*b*).
Officers of, barred from buying actionable claim	India Act IV of 1882, s. 136.

(2) *Special for Madras.*

(a) *Constitution and Jurisdiction.*

Establishment and constitution of	India Act III of 1873, ss. 3–9, 25, 26.
General jurisdiction and powers of	India Act III of 1873, ss. 10–16, 27.
Judge of, not to try suits in which they are interested, nor appeals from decrees passed in other capacities.	India Act III of 1873, s. 17.
Investiture of certain, with powers of Courts of Small Causes ..	India Act III of 1873, s. 28.
Jurisdiction of, in suits by landholders for recovery of rent, &c. ..	Mad. Act VIII of 1865, s. 87.
for damages for anything purporting to be done in pursuance of powers for recovery of rent.	Mad. Act VIII of 1865, s. 78.
for declaration of right to have or not to have portion of estate separately registered.	Mad. Act I of 1876, ss. 5, 6.
in suits arising out of proceedings for collection of revenue.	Mad. Act II of 1864, s. 59.
barred as to questions relating to rate of revenue assessment.	Mad. Act II of 1864, s. 58.
suits grounded on proceedings of Collector in inquiries into malversation by public servants.	Mad. Reg. IX of 1822, s. 16. Mad. Reg. III of 1832, ss. 2, 3.
for hereditary office, or emoluments thereof except enfranchised service inams.	Mad. Reg. VI of 1831, s. 3. Mad. Act IV of 1866, ss. 1–3.
relating to enjoyment of, liability to, or rate of village cess.	Mad. Act IV of 1864, s. 8.
for compensation for abolition of, or encroachment on private ferry.	Mad. Act I of 1870, ss. 20, 21.
to establish rights in or over any land reserved as forest or to forest produce of such land.	Mad. Act V of 1882, s. 5.

(b) *Miscellaneous.*

Ministerial officers of, appointment, removal, transfer and duties of	India Act III of 1873, ss. 22–24A. India Act XIX of 1877, ss. 2, 3.
Misconduct of Judges of	India Act III of 1873, ss. 18, 21.
Vacations of	India Act III of 1873, s. 30.

CIVIL DIVISIONS.

(1) *British India.*

General definition of	India Act I of 1868, s. 2 (9).

(2) *Coromandel.*

Jurisdiction over British subjects, resident on coast of	26 Geo. III, c. 75, s. 30.
Ceded colonies on coast of, to be under jurisdiction of Fort Saint George.	6 Geo. IV, c. 85, s. 20.

(3) *Presidency Town.*

Definition of	India Act X of 1882, s. 4 (*h*).
Power to extend limits of	54 Geo. III, c. 84, s. 2.
Laws Local Extent Act not to affect	India Act XV of 1874, s. 8 (*j*).
Constitution of, as district under Code of Criminal Procedure ...	India Act X of 1882, s. 7.

CIVIL JAIL.

(1) *General Provisions.*

Appointment of for persons arrested under process of Civil Court ..	India Act XIV of 1882, s. 336.
Power to declare part of criminal jail to be	Mad. Act V of 1869, s. 8.
Corporal punishment not to be inflicted on prisoner in	Mad. Act V of 1869, s. 11 (iv).
Imprisonment in, of absconding apprentice	India Act XIX of 1850, s. 15.
for breaches of cantonment rules	Mad. Act I of 1866, s. 23.
for practising as pleader, mookhtiar or revenue agent without certificate.	India Act XVIII of 1879, ss. 32—34.
of juror or assessor, for recovery of fine for non-attendance.	India Act X of 1882, ss. 318, 332.
on failure to recover penalty on bond taken by Criminal Court.	India Act X of 1882, s. 514.
military courts of request ..	India Act XI of 1841, s. 15.

(2) *Inspector-General of Jails.*

Power of, to order removal of prisoners from one jail to another.	India Act V of 1871, s. 30. India Act XIV of 1878, s. 6.
Duty of, in regard to inspecting and reporting on reformatory school.	India Act V of 1876, s. 6.
Is 'ex-officio' visitor of Lunatic Asylums	India Act XXXVI of 1858, s. 2.
May direct removal of lunatic from one public asylum to another.	India Act XXXVI of 1858, s. 11.
Duties of, in regard to inspection of criminal lunatics confined in prison.	India Act X of 1882, ss. 472—474.

(3) *Superintendent of Jail.*

Warrants for execution of sentences in what cases to be addressed to.	India Act X of 1882, s. 384.
Sentence of whipping to be inflicted in presence of	India Act X of 1882, s. 391.
To obey orders for causing attendance of prisoners as witnesses or accused, in civil or criminal court, except in certain specified cases.	India Act XV of 1869, ss. 9–11.
Power of, to bring youthful convict before Magistrate with a view to his being sent to Reformatory School.	India Act V of 1876, s. 8.

Duty of, to forward petition of appeal by prisoner to appellate court	India Act X of 1882, s. 420.
Certificate of, admissible in evidence to prove previous conviction	India Act X of 1882, s. 511.

(4) *Presidency Jail.*

Superintendent of—	
Appointment and nomenclature of	India Act V of 1871, s. 4.
Execution by, of sentences and orders passed by any Court, Judge, Justice of the Peace, Magistrate of Police or Coroner.	India Act V of 1871, ss. 5-14.
Delivery to, of persons arrested under warrant of High Court or Court of Small Causes pending next sitting of the Court.	India Act V of 1871, s. 14.
Duties of, with reference to confinement of State prisoners ...	India Act V of 1871, s. 15.

(5) *Prison.*

Appointment of, for confinement of any person under Code of Criminal Procedure.	India Act X of 1882, s. 540.
military offenders	44 & 45 Vic., c. 58, ss. 62, 65, 131—135.
Confinement, transfer, and discharge of military convicts in ...	44 & 45 Vic., c. 58, ss. 60-67. India Act V of 1869, arts. 150—153, 161, 166.
Inspection of criminal lunatic confined in	India Act X of 1882, s. 472.
Superintendent of, duty of, to give effect to orders for detention of all British Indian convicts under authority of warrant.	India Act V of 1871, ss. 16, 17.
procedure of, in case of doubt as to legality of warrant sent to him for execution.	India Act V of 1871, s. 18.
to act as enumerator in taking census ...	India Act XIV of 1880, s. 5.
Detention in, of persons convicted of certain offences in Native States.	India Act V of 1871, ss. 19, 20.
Escape from, intentional or negligent, suffering of by public servants.	India Act XLV of 1860, ss. 221-223. India Act XXVII of 1870, s. 8.
attempt to, penalty for	India Act XLV of 1860, ss. 224, 225A. India Act XXVII of 1870, s. 9.
harbouring person on	India Act XLV of 1860, s. 216.
Jailor, warrant for imprisonment to be lodged with	India Act X of 1882, s. 385.

(6) *Special for Madras.*

Inspection, superintendence, visiting officers, and rules for management of.	Mad. Act V of 1869, ss. 2, 3.
Appointment of jailors for	Mad. Act V of 1869, s. 4.
Superintendent of Jail, powers of, as to punishment of prisoners and prison officials.	Mad. Act V of 1869, ss. 9-13, 19.
conferred of, on other officers in charge of prisoners.	Mad. Act V of 1869, s. 18.
Penalties for taking spirits, drugs, tobacco, weapons, or tools into.	Mad. Act V of 1869, ss. 14, 19.
Imprisonment in, of persons sentenced by Collector in inquiries into malversation by public servants, &c.	Mad. Reg. IX of 1822, ss. 5, 8, 13, 15.
Detention in, of land revenue defaulters	Mad. Act II of 1864, s. 49.

CLERK OF CROWN.

Defined	India Act X of 1882, s. 4 (*l*).
Charge, &c., to be forwarded to, on commitment to High Court	India Act X of 1882, s. 218.
Power of, to summon witnesses for defence	India Act IX of 1882, ss. 211, 216.
take affidavits	India Act X of 1882, s. 539.
Amendment of charge by	India Act X of 1882, s. 226.
Preparation and publication of lists of jurors by	India Act X of 1882, ss. 313, 314.

COAST LIGHT DUES.

Rate, time of payment, ascertainment and collection of	India Act IX of 1879, ss. 4—13, 15.
Determination of disputes as to liability to payment of	India Act IX of 1879, s. 14.
Statement of receipts of, and expenditure from, to be published	India Act IX of 1879, s. 16.

COLLECTOR OF DISTRICT.

(1) *General.*

(*a*) *Status, Privileges, &c.*

To be Civil Servant	24 and 25 Vic., c. 54. Mad. Reg. II of 1803, s. 2.
Not to trade	33 Geo. III, c. 52, s. 137.
Exempted from service as juror or assessor	India Act X of 1882, s. 320 (*c*).

(*b*) *Powers and Duties in relation to Land and Land Revenue.*

When may be directed to take charge of estate of lunatic, and powers of, in regard to such estate.	India Act XXXV of 1858, ss. 11—15, 18.
May apply for inquiry into lunacy of person possessed of land in the mofussil.	India Act XXXV of 1858, s. 3.
Not to appoint guardian of person of lunatic subject to jurisdiction of High Court.	India Act XXXIV of 1858, s. 24.
When may be appointed curator in cases of succession	India Act XIX of 1841, s. 5.
Proclamation of sale in execution of decree when to be notified in office of.	India Act XIV of 1882, s. 289.
Order for attachment of land to be fixed up in office of	India Act XIV of 1882, s. 274.
Transfer of execution of civil decrees to—	
power of Local Government to make rules as to ...	India Act XIV of 1882, s. 320.
general powers of Collector on	India Act XIV of 1882, s. 321.
powers and procedure for ascertainment and liquidation of judgment-debtor's liabilities.	India Act XIV of 1882, ss. 322—324, 325C.

Transfer of power of Collector to refer investigation of liabilities to Civil Court.	India Act XIV of 1882, ss. 322B, 322C.
rendering of accounts to, and disposal of balance by, Court on.	India Act XIV of 1882, s. 324A.
conduct of sales on	India Act XIV of 1882, s. 325. India Act XVII of 1879, s. 30.
restrictions on alienation by, and prosecution of remedies against judgment-debtor, during continuance of.	India Act XIV of 1882, s. 325A. India Act XVII of 1879, s. 31.
when property situated in different districts	India Act XIV of 1882, s. 325B.
Discretion of Civil Court as to staying sale in execution of decree on representation of.	India Act XIV of 1882, s. 326, sch. IV, No. 152.
When notice to be given by, to decree-holders	India Act XIV of 1882, s. 322A.
Duty of, to ascertain amount of immovable property available for execution of money decrees.	India Act XIV of 1882, s. 322B.
Suits relating to charities when to be instituted by, or with written consent of.	India Act XIV of 1882, s. 539.
Duty and powers of, in respect to claims to waste lands advertised for sale, &c.	India Act XXIII of 1863, ss. 1—5.
Attachment of land of absconding person to be made through ...	India Act X of 1882, s. 88.
Power of, to make advances for improvement of land	India Act XXVI of 1871.
Exemption from Court-fee of certain applications to, relating to settlement.	India Act VII of 1870, s. 19 (ix).

(c) *Miscellaneous Powers and Duties.*

As to claims relating to pensions and grants of money or land revenue payment of pensions, &c., subject to rules.	India Act XXIII of 1871, s. 5. India Act XXIII of 1871, s. 8.
In regard to formation and revision of list of jurors or assessors...	India Act X of 1882, ss. 321—325.
When to perform duties of Customs Collector	India Act VIII of 1878, s. 8.
In relation to stamps	India Act I of 1879, s. 3 (8).
In reference to confiscated opium	India Act I of 1878, s. 12.
In relation to treasure-trove	India Act VI of 1878.
To grant licenses for killing and capturing wild elephants ...	Mad. Act I of 1873, ss. 7, 8. India Act VI of 1879, s. 5.
To fix number of process-servers in his own and subordinate courts..	India Act VII of 1870, s. 23.
Appeal when allowed to, from orders of Canal officer	India Act III of 1873, s. 35.
May be empowered to hear appeals from Forest Settlement officers.	India Act VII of 1878, s. 16.
Duty of, to notify restrictions on use of protected forests	India Act VII of 1878, s. 30.
Claims for compensation for construction of canal or drainage works to be disposed of by.	India Act VIII of 1873, s. 61.
When exempt from action for wrong	37 Geo. III, c. 142, s. 14. India Act XVIII of 1850, s. 1.
Rules for guidance of, in settling questions of compensation on compulsory acquisition of land.	India Act X of 1870, s. 59.
Forest officer when to be deemed	India Act VII of 1878, s. 10 (a).
Application for advance for improvement of land to be made to ...	India Act XXVI of 1871, ss. 4, 18.
When entitled to notice of suit	India Act XIV of 1882, s. 424.

(2) *Special for Madras.*

(a) *Office and General Incidents.*

Subordination of, to Board of Revenue	Mad. Reg. II of 1803, ss. 5, 6.
Rules to be observed on death, resignation or removal of	Mad. Reg. I of 1803, s. 48. Mad. Reg. II of 1803, ss. 66—69.
Leave of absence of, and giving over and receiving charge by ...	Mad. Reg. II of 1803, ss. 66—69.
Not to be concerned in farm of revenue, lending money to landholders, &c., trade or banking.	Mad. Reg. II of 1803, ss. 60—64.
Not to publish proclamations which may affect intercourse with Foreign States.	Mad. Reg. II of 1803, s. 65.
Establishments of, to be sanctioned by Government	Mad. Reg. I of 1803, s. 54.

(b) *Powers and Duties in relation to Land and Land Revenue.*

General duties of, in regard to collection, assessment and accounts of land revenue.	Mad. Reg. II of 1803, ss. 13—31, 38—44.
Powers of, as to recovery of land revenue	Mad. Act II of 1864.
Register of transfers and alienation of land to be kept by	Mad. Reg. II of 1803, ss. 23, 24.
Jurisdiction of, to entertain and refer to village or district punchayets, disputes regarding boundaries, occupation, cultivation or irrigation of land.	Mad. Reg. XII of 1816.
Duties of, as to attachment and sale of lands in pursuance of decree of Civil Court.	Mad. Reg. II of 1803, ss. 15—23.
Duty of, to report to District Court cases of females and minors having property not under Court of Wards.	Mad. Reg. V of 1804, ss. 20—22. Mad. Reg. X of 1831, s. 3.

(c) *Judicial Powers.*

Powers of, as to fining public servants	Mad. Reg. II of 1803, s. 37.
Jurisdiction of, as to claims to hereditary offices	Mad. Reg. VI of 1831, ss. 2, 4—6.
Powers of, to issue, on application of landholder, warrants for ejectment or arrest of tenant.	Mad. Act VIII of 1865, ss. 41—45.
to set aside illegal or irregular distraint by landholder ...	Mad. Act VIII of 1865, ss. 17, 18.
To have powers of Civil Court as to enforcing production of evidence in summary revenue suit.	Mad. Act VIII of 1865, s. 60.

(d) *Miscellaneous Powers and Duties.*

Proceedings of, to be in open court	Mad. Reg. II of 1803, s. 7.
diaries of, to be kept	Mad. Reg. II of 1803, s. 11.

To collect all public revenues	Mad. Reg. II of 1803, ss. 2, 8, 9.
Duty of, to grant receipts for revenue	Mad. Reg. II of 1803, ss. 33—35.
Public money how to be kept by	Mad. Reg. II of 1803, s. 12.
Duties of, in respect to collection, assessment, &c., of miscellaneous branches of public revenue.	Mad. Reg. II of 1803, s. 32.
Powers and duties of, in connection with abkarry revenue ...	Mad. Act III of 1864. Mad. Act V of 1879.
Duties of, in connection with salt revenue	Mad. Reg. I of 1805, ss. 4, 11, 13. Mad. Act VI of 1871, ss. 3—10, 26—31.
Duties of, as to assessment, collection, &c., of local rates and taxes	Mad. Act I of 1882, s. 31.
Enforcement of payment of tolls on canals and ferries by ...	Mad. Act I of 1870, ss. 8, 16.
Management of ferries by	Mad. Act I of 1870, ss. 17—19.

COMMANDER-IN-CHIEF.

Guilty of oppression, triable in England	11 and 12 Wm. III, c. 12.
Appointment of	33 Geo. III, c. 52, ss. 25, 26.
Of forces of Crown to be Commander-in-Chief of Company's forces ..	16 and 17 Vic., c. 95, s. 30.
Eligible to Council as Extraordinary Member	33 Geo. III, c. 52, ss. 30, 32, 33. 24 and 25 Vic., c. 67, s. 3.
Not to succeed to temporary government of Presidency, unless provisionally appointed.	33 Geo. III, c. 52, s. 30.
When may be the Second Member of Council	33 Geo. III, c. 52, s. 32.
Resident at Fort St. George or to be a Member of local Council	33 Geo. III, c. 52, s. 33.
Departure from India of, to be deemed a resignation	33 Geo. III, c. 52, s. 37. 3 and 4 Wm. IV, c. 85, s. 79.
Wilfully disobeying, &c., orders of Court of Directors	35 Geo. III, c. 52, s. 65.
Vacancy in office of	53 Geo. III, c. 155, s. 80.
Passage-money, and commencement of salaries of	53 Geo. III, c. 155, s. 89.
Power of Secretary of State for India to fix, alter or abolish allowances of, for equipment and voyage.	43 Vic., c. 3, s. 2.
Salary of	16 and 17 Vic., c. 95, s. 35.
Confirmation, revision and approval of sentences by	44 and 45 Vic., c. 58, s. 54.
Commutation and remission of sentences by	44 and 45 Vic., c. 58, s. 57.
Power of, to commit to, and discharge from, penal servitude prison ..	44 and 45 Vic., c. 58, s. 59.
Empowered to issue rules for composition of Military Courts of Request.	India Act XI of 1841, s. 3.
annul proceedings of Military Courts of Request for illegality.	India Act XV of 1841, s. 11.

COMPANIES.

Registrar of Joint Stock Companies.

Appointment, duties, powers, office and assistants' seal, &c., of	India Act VI of 1882, s. 220.
Notice of what matters to be given to	India Act VI of 1882, ss. 36, 48, 51, 57, 59, 64, 70, 79, 160, 187.
Orders of Court in respect of companies when to be registered by	India Act VI of 1882, s. 18.
Certificate of incorporation to be issued by	India Act VI of 1882, ss. 36, 41, 43.
Memorandum and articles of association to be registered	India Act VI of 1882, ss. 40, 41.
Annual balance sheet to be filed with	India Act VI of 1882, s. 74.
Notice to, may be sent through Post office	India Act VI of 1882, ss. 84, 90.
Order for winding up, to be notified to	India Act VI of 1882, s. 137.
Registration of literary and scientific societies by	India Act XXI of 1860, ss. 1—4, 18. India Act VI of 1882, ss. 26, 256.

CORONER.

Appointment and salary of	India Act IV of 1871, ss. 3, 4, 36.
To be deemed public servant	India Act IV of 1871, s. 5.
Exemption of, from serving on jury	India Act IV of 1871, s. 39.
from liability to arrest while on duty	India Act IV of 1871, s. 40.
Jurisdiction of, to inquire into cause of death	India Act IV of 1871, ss. 8—10. India Act X of 1881, s. 5.
power to alter local limits of, in Madras	India Act X of 1881, s. 3.
powers of Commissioner of Police, in places excluded from.	India Act X of 1881, s. 4.
reckoned judicial proceeding	India Act IV of 1871, s. 8.
Power of, to order post-mortem examination	India Act IV of 1871, s. 18.
to issue warrant for arrest of, and take bail for, accused ...	India Act IV of 1871, ss. 26, 27.
to bind over witnesses to appear in court	India Act IV of 1871, s. 25.
to issue warrant for burial	India Act IV of 1871, s. 28.
to order disinterment	India Act IV of 1871, s. 11.
to appoint deputy in case of sickness or absence	India Act IV of 1871, s. 38.
to record accused's confession	India Act IV of 1871, s. 20. India Act X of 1881, s. 7.
Execution of order for committal passed by	India Act V of 1871, ss. 5, 12.
Jury, composition of	India Act IV of 1871, ss. 12, 35.
exemption from serving on twice within a year	India Act IV of 1871, s. 34.
of customs officers from serving on	India Act VIII of 1878, s. 10.
administration of oath to	India Act IV of 1871, s 14.
recognisances in case of adjournment	India Act IV of 1871, s. 21.
verdict of	India Act IV of 1871, ss. 22, 23.
fine for non-attendance of	India Act IV of 1871, ss. 31, 33.
Inquisition, form and contents of	India Act IV of 1871, s. 24, sch. 11.
amendment of	India Act IV of 1871, s. 29.
Witnesses, summoning and evidence of	India Act IV of 1871, ss. 16—21. India Act X of 1881, s. 6.
Deputy, powers and privileges and liabilities of	India Act IV of 1871, ss. 38, 41.
Penalty on, for breach of duty	India Act IV of 1871, s. 41.

COVENANTED CIVIL SERVICE.

(1) *General Provisions.*

Limitation of number of writers	33 Geo. III, c. 52, s. 59.
Regulations as to periods of service required for certain amounts of salary.	33 Geo. III, c. 52, ss. 57, 58. 53 Geo. III, c. 155, s. 82.
Restoration of servants	53 Geo. III, c. 155, s. 85.
Rank and precedence	53 Geo. III, c. 155, ss. 85, 86.
Allowances paid to representatives	7 Geo. IV, c. 56, s. 3. 3 & 4 Wm. IV, c. 85, s. 79.
Payment in cases of sickness	7 Wm. IV & 1 Vic., c. 47, ss. 1—3.
Furlough regulations extendible	16 & 17 Vic., c. 95, s. 32.
Retiring and invalid pensions of members	37 Vic., c. 12.
Act to amend law concerning	24 & 25 Vic., c. 54.
Offices reserved for	24 & 35 Vic., c. 54.
Collectors to be of	Mad. Reg. II of 1803, s. 2.
Power to appoint natives without examination to offices hitherto reserved for.	33 & 34 Vic., c. 3, s. 6.

(2) *Assistant Collector.*

In Regulation Provinces to be civil servant	24 & 25 Vic., c. 54.
To exercise powers of Collector under License Act, subject to control of, and appeal to, Collector.	Mad. Act III of 1878, ss. 16, 27.
Empowered to grant permits for possession or transit of spirituous liquor.	Mad. Act III of 1864, ss. 14—16.

(3) *Candidates for Civil Service.*

For appointment to civil service, rules as to	21 and 22 Vic., c. 106, s. 32.

(4) *Civil and Session Judges.*

To be Civil Servants	24 & 25 Vic., c. 54.

(5) *Joint Magistrate.*

In Regulation Provinces to be Civil Servant	24 & 25 Vic., c. 54.

(6) *Junior Secretaries.*

When to be Civil Servants	24 & 25 Vic., c. 54.

(7) *Secretary to Government.*

When to be Civil Servant	24 & 25 Vict., c. 54.
Senior, when to be acting Governor	3 & 4 Wm. IV, c. 85, s. 63.
Competent to exercise all powers of Chief Secretary	India Act II of 1834.
Requisitions by, for information as to affairs of Presidency Banks to be complied with.	India Act XI of 1876, s. 43.
Order by, for re-apprehension of convict on revocation of license to be at large.	India Act V of 1871, s. 25.
Declaration regarding acquisition of land to be made under signature of.	India Act X of 1870, s. 6.
Signature of proceedings at Presidencies by Chief Secretary ...	53 Geo. III, c. 155, s. 70.
Notice of suit when to be given to	India Act XIV of 1882, s. 424.

(8) *Under-Secretary.*

When to be Civil Servant	28 & 25 Vic., c. 54.

CRIMINAL JUSTICE.

(1) *Criminal Justice.*

Act for improving administration of	9 Geo. IV, c. 74.

(2) *Criminal Law.*

Right to alter Mahomedan, recognised	13 Geo. III, c. 63, s. 7.

(3) *Sessions Trial.*

(*a*) *General Provisions.*

Proceedings to commence with explanation of charge and accused's plea thereto.	India Act X of 1882, ss. 271, 272.
Accused may be convicted on plea of guilty	India Act X of 1882, s. 271.
Procedure on sickness, &c., of juror, assessor, or accused ...	India Act X of 1882, ss. 282—285.
Opening and closing of cases for prosecution and defence, examination of witnesses, &c.	India Act X of 1882, ss. 286—296.
Judgment when to be delivered	India Act X of 1882, ss. 289, 305, 306.
right of accused to examine, in attendance	India Act X of 1882, s. 291.
Conclusion of, in cases tried by jury	India Act X of 1882, ss. 297—307.
Respective duties of Judge and jury as to decision of	India Act X of 1882, ss. 297—299.
Re-trial on discharge of jury unless Judge orders to the contrary	India Act X of 1882, s. 331.
Procedure in, as regards proof of previous conviction	India Act X of 1882, s. 310.
Procedure where accused, though not insane, does not understand proceedings.	India Act X of 1882, s. 341.
Convictions in, with jury appealable only on question of law ...	India Act X of 1882, ss. 418, 423(*d*).

Procedure in case of Sessions Judge being disqualified to try or to punish adequately European British subject on.	India Act X of 1882, ss. 449, 450.
Question of lunacy of accused to be tried prior to	India Act X of 1882, s. 465.

(b) *Special Procedure in High Court.*

High Court includes Chief Court, &c.	India Act X of 1882, s. 266.
Stay of proceedings, on unsustainable charge	India Act X of 1882, ss. 273, 403, expl.
on motion of Advocate-General	India Act X of 1882, s. 333.
Time and place of holding sittings for and notice thereof ...	India Act X of 1882, ss. 334—336.
Reservation for decision of Bench of question of law arising in ...	India Act X of 1882, s. 434.

(c) *Special Procedure in High Court of Session.*

To be conducted by Public Prosecutor	India Act X of 1882, s. 270.
Conclusion of, in case tried with assessors	India Act X of 1882, s. 309.
Procedure of, dissent of Judge from verdict of jury	India Act X of 1882, s. 307.
Decision in case tried with assessors rests with Judge	India Act X of 1882, s. 309.
Copy of finding and sentence in, to be forwarded to District Magistrate.	India Act X of 1882, s. 373.
Trial by jury of case triable with assessors and 'vice versâ' when invalid.	India Act X of 1882, s. 536.
Transfer by Sessions Judge of case against European British subject to High Court.	India Act X of 1882, s. 449.

(4) *Criminal Court.*

To be open and public	India Act X of 1882, s. 352.
Power to prevent access to, in particular case	India Act X of 1882, s. 352.
Constitution of	India Act X of 1882, ss. 6—27.
General powers of	India Act X of 1882, ss. 28—41.
What offences respectively triable by	India Act X of 1882, ss. 28, 29.
Jurisdiction of, as to trial of non-military offences by soldiers ...	44 & 45 Vic., c. 58, s. 41. India Act V of 1869, art. 170. India Act X of 1882, s. 549.
Not to try case, &c., in which presiding officer personally interested.	India Act X of 1882, s. 555.
Not affected by rules of Civil Procedure as to appeal to Queen in Council.	India Act XIV of 1882, s. 616.
Private persons not entitled to prosecute without permission of ...	India Act X of 1882, s. 495.
Mode of conferring, continuance, and cancellation of powers of ...	India Act X of 1882, ss. 39—41.
Power of, to summon witness at any stage of proceedings, or examine any person present.	India Act X of 1882, s. 540.
to procure attendance of accused or witness, confined in jail.	India Act XV of 1869, ss. 3, 6—11. India Act X of 1882, s. 542.
to detain any person in attendance appearing to be offender.	India Act X of 1882, s. 351.
to call for and inspect police case diary	India Act X of 1882, s. 172.
award compensation to injured party	India Act X of 1882, s. 545.
Orders of, not appealable unless specially provided	India Act X of 1882, s. 404.
Court-fee on application to, not specially provided for	India Act VII of 1870, s. 6, sch. II, No. 1 (b).
Not bound to impound instruments not duly stamped, except in possession and maintenance cases.	India Act I of 1879, s. 33.
Instruments not duly stamped receivable in evidence in, except in maintenance and possession cases.	India Act I of 1879, s. 34.

(5) *Extradition.*

Of persons accused or convicted of crimes committed in Foreign States or at sea.	33 & 34 Vic., c. 52. 36 & 37 Vic., c. 60.
For offences committed in Foreign State, by order—	
of Political Agent	India Act XXI of 1879, s. 11, sch.
of Government of India or Local Government ...	India Act XXI of 1879, s. 14.
For offences connected with slave-trade	36 & 37 Vic., c. 88, s. 27.
Power of Magistrate to arrest offender in anticipation of order for.	India Act XXI of 1879, ss. 15, 16.
Saving of treaties regarding	India Act XXI of 1879, s. 1. 33 & 34 Vic., c. 52, s. 23.
Act to give effect to convention regarding, with Government of Portuguese India.	India Act IV of 1880.

CURNUM.

(1) *General Provisions.*

Duty of, to assist head of village in making inquest	Mad. Reg. XI of 1816, s. 13.
to keep register of punishment inflicted by Village Moonsifs.	Mad. Reg. XI of 1816, s. 14.
and attest decrees of Village Moonsifs	Mad. Reg. IV of 1816, ss. 10, 21, 24, 30, 31, 39.
of Village Punchayets ...	Mad. Reg. V of 1816, ss. 4, 8—10, 20.
in relation to decrees of Village Punchayets, relating to disputed boundaries, &c.	Mad. Reg. XII of 1816, ss. 8, 10, 13.
Puttahs and moochilkas to be signed and registered by	Mad. Act VIII of 1865, s. 6.
Registers, returns and accounts kept and made by—	
nature of	Mad. Reg. XXIX of 1802, s. 11.
production of, by whose orders	Mad. Reg. XXIX of 1802, s. 12.
to be proved by oath	Mad. Reg. XXIX of 1802, s. 17.
falsification of, or abetment thereof by landholders ...	Mad. Reg. XXIX of 1802, ss. 18, 19.
Application of village cess to payment of	Mad. Act IV of 1864, ss. 5, 7.

(2) *In permanently-settled districts.*

Office of, established for villages	Mad. Reg. XXIX of 1802, s. 2.
hereditary	Mad. Reg. XXV of 1802, s. 11. Mad. Reg. XXIX of 1802, s. 7.
Saved from general rules as to claims to hereditary offices ...	Mad. Reg. VI of 1831, s. 8.

Lists of, to be filed in courts and revenue offices	Mad. Reg. XXIX of 1802, s. 8.
Number of, and appointment of, by zemindars	Mad. Reg. XXV of 1802, s. 11. Mad. Reg. XXIX of 1802, ss. 2, 3, 6, 9, 10.
Removable only on complaint by order of Court	Mad. Reg. XXV of 1802, s. 11. Mad. Reg. XXIX of 1802, s. 5.
Registers, returns and accounts kept and made by—	
production of, how compelled	Mad. Reg. XXIX of 1882, ss. 15, 16. Mad. Act V of 1864, ss. 4, 5. Mad. Act IV of 1871, s. 43.
before Collector for what purposes allowed.	Mad. Reg. XXIX of 1802, ss. 13, 14. Mad. Act II of 1804, ss. 4, 5. Mad. Act IV of 1871, s. 43.

(3) *In districts not permanently settled.*

To be under the direct authority of Collector and his subordinates.	Mad. Reg. II of 1806, s. 7 (2).
Register of revenue-paying lands—	
To be kept up by Collector in form prescribed by Board of Revenue.	Mad. Reg. XXVI of 1802, s. 2.
Transfers of land to be registered in	Mad. Reg. XXV of 1882, s. 8. Mad. Reg. XXVI of 1882, ss. 2, 3. Mad. Act I of 1876.
of portion of permanently-settled estates, registration of—application for and procedure for assessment of land revenue thereon.	Mad. Act I of 1876, ss. 1—3.
effect of, and liability of portions of estate	Mad. Act I of 1876, s. 4.
suits to declare or contest right to	Mad. Act I of 1876, ss. 5, 6.

CUSTOM HOUSE.

Power to appoint, as shipping office	India Act of 1859, s. 8.

CUSTOMS OFFICERS.

Commissioner of Customs to be Covenanted Civil Servant	24 & 25 Vic., c. 54.
Exempted from service as jurors or assessors	India Act X of 1882, s. 320(c).
Powers of, as to seizure and detention of illicit salt	Mad Act I of 1882, s. 7.
Court-fee on application to	India Act VII of 1870, s. 6, sch. II, No. 1(a)

DEPUTY COLLECTOR.

Appointment, powers, duties and dismissal of	India Act VII of 1857.
To exercise powers of Collector under License Act subject to control of, and appeal to, Collector.	Mad. Act III of 1878, ss. 16, 27.
Empowered to grant permits for possession or transit of spirituous liquors.	Mad. Act III of 1864, ss. 14–16.

DEPUTY SHERISTADARS.

When authorized to conduct investigations under	Mad. Reg. IX of 1822, s. 4. Mad. Reg. VII of 1828, s. 4.

DISTRICT COURTS.

(1) *General.*

(*a*) *Definition.*

Definition of	India Act XIV of 1882, s. 2.
Includes Presidency High Courts as to ordinary original civil jurisdiction.	India Act XIV of 1882, s. 2.

(*b*) *Subordination of other Courts and General Controlling and Regulating Powers.*

Subordination of Courts of Small Causes to	India Act XIV of 1882, s. 2.
Order for attendance of prisoner as witness in subordinate Civil Court, or Mofussil Court of Small Causes, to be countersigned by Judge of.	India Act XV of 1869, s. 5.
Decrees to be sent to, for execution in another district	India Act XIV of 1882, s. 223.
Power of, to send decrees to subordinate Courts for execution ...	India Act XIV of 1882, ss. 223, 226.
to cause execution of warrant for arrest or attachment issued by other Court otherwise than in execution of decree.	India Act XIV of 1882, s. 648.
Judge to fix number of process-serving peons for his own and subordinate Courts.	India Act VII of 1870, s. 22.
Judge to renew certificates of pleaders and mookhtiars.	India Act XVIII of 1879, s. 7.
Report as to unprofessional conduct of pleader to be made to High Court through.	India Act XVIII of 1879, s. 14.
Sanction of, required to arrest of public officer in civil suit ...	India Act XIV of 1882, s. 425.

(*c*) *Jurisdiction of as to Lunatics.*

In inquisitions of lunacy of persons not subject to jurisdiction of High Court.	India Act XXXV of 1858, ss. 2–8, 21.
In respect of person and estate of lunatic	India Act XXXV of 1858, ss. 9–19.
Appeals from orders of, in questions of lunacy	India Act XXXV of 1858, s. 22.
To order detention of lunatic in asylum	India Act XXXVI of 1858, s. 8.
payment by relative of cost of lunatic's maintenance in asylum.	India Act XXXVI of 1858, ss. 8, 15.

Enquiry by, into lunacy of person subject to jurisdiction of High Court.	India Act XXXIV of 1858, s. 8.

(*d*) *Jurisdiction in matters relating to Marriage.*

In regard to Christians	India Act IV of 1869, s. 4.
Judge of, to be Judge of Parsee District Matrimonial Court ...	India Act XV of 1865, s. 17.
To authorize marriage of Christian minor—	
in case of insanity or unjust withholding of consent by person whose consent is necessary.	India Act XV of 1872, ss. 45, 85.
in case of refusal by Marriage Registrar to issue certificate.	India Act XV of 1872, ss. 46, 85.
on application of Marriage Registrar in case of doubt as to authority of person prohibiting.	India Act XV of 1872, ss. 48, 85.

(*e*) *Jurisdiction in matters relating to Succession and Minority.*

In regard to grant of certificates for collection of debts on successions of Hindoos, Mahomedans, and Booddhists.	India Act XXVII of 1860, ss. 3, 5, 6.
In cases of wrongful possession on succession	India Act XIX of 1841, ss. 1–19.
Duty of, to take possession of property pending grant of probate or administration, and report to Administrator-General in certain cases.	India Act X of 1865, s. 239. India Act II of 1874, s. 64.
Payment into, of legacy immediately payable to minor	India Act X of 1865, s. 308. India Act V of 1881, s. 127.
In applications regarding custody and guardianship of minors ...	India Act IX of 1861, ss. 1–8.

(*f*) *Jurisdiction in relation to Partnership, Companies and Societies, &c.*

In winding up partnership	India Act IX of 1872, s. 265.
In regard to appointments of trustees or members of committees for religious endowments on vacancy occurring.	India Act XX of 1863, ss. 5, 10.
suits against such trustees or members of committees for breach of duty.	India Act XX of 1863, ss. 14, 15.
In respect of dissolution and adjustment of affairs of registered societies.	India Act XXI of 1860, s. 13.
reduction of capital of companies	India Act VI of 1882, ss. 15–22.
To order rectification of register of members of company ...	India Act VI of 1882, ss. 58, 59.
In respect of the winding-up of companies	India Act VI of 1882, ss. 128–172, 181, 182, 184, 185, 191–196.
As to adjustment of affairs on dissolution of religious society ...	India Act I of 1880, s. 6.

(*g*) *Jurisdiction in relation to Trusts.*

May permit creation of trust by or on behalf of minor	India Act II of 1882, s. 7.
May consent to modification of trust on behalf of beneficiaries incompetent to contract.	India Act II of 1882, s. 11.
May authorize extension of time for sale of trust property ...	India Act II of 1882, s. 22.
To advise or direct trustee on application	India Act II of 1882, s. 34.
To control lease of trust property	India Act II of 1882, s. 36.
discretion of trustees to what extent	India Act II of 1882, ss. 17, 49.
Permission of, requisite to renunciation of trust after acceptance or discharge of trustee.	India Act II of 1882, ss. 46, 72.
purchase by trustee of beneficiary's interest.	India Act II of 1882, s. 53.
To appoint new trustee on discharge or death of old	India Act II of 1882, s. 74.
To perform duties of trustee pending appointment of new trustee.	India Act II of 1882, s. 59.

(*h*) *Miscellaneous.*

In suit for infringement or fraudulent obtaining of patent ...	India Act XV of 1859, ss. 22, 33.
for infringement of copyright	India Act XX of 1847, s. 7.
relating to public charities	India Act XIV of 1882, s. 539.
In regard to application for freeing immovable property from incumbrances.	India Act IV of 1882, s. 57 (*e*).
Judge of, to be member of special Court for trial of claims to waste lands.	India Act XXIII of 1863, s. 67.
Appeal to, limitation of time for	India Act XV of 1877, s. 4, sch. II, No. 152.
In reference to determination of compensation for land compulsorily acquired.	India Act X of 1870, s. 3.
Power of, to call for production of will deposited in registration office.	India Act III of 1877, s. 46.
as to making declaration of insolvency of judgment-debtors.	India Act XIV of 1882, s. 344.
as to investigation of liabilities of judgment-debtors on transfer of execution to Collector.	India Act XIV of 1882, s. 322.
to levy fine imposed on European British subject under Police Act.	India Act V of 1861, s. 40. Mad. Act V of 1865, s. 4.
for offences connected with stage carriages.	India Act XVI of 1861, s. 19.
Suit against Ambassador, Foreign Prince or State when admissible.	India Act XIV of 1882, s. 433.
Appeal to, from sentence of fine passed on pleaders by Subordinate Judges and District Moonsifs.	India Act I of 1846, ss. 10, 12.
Appointment of receiver by	India Act XIV of 1882, s. 505.

(2) *Special for Madras.*

(*a*) *Constitution and Establishment.*

Number and location of	India Act III of 1873, ss. 3, 5.
Judges of, appointment of	India Act III of 1873, s. 6.
temporary discharge of duties of	India Act III of 1873, s. 25.

Judges of, suspension and removal of, by Local Government ...	India Act III of 1873, s. 18.
power of, to suspend and nominate to vacancy in office of District Moonsif.	India Act III of 1873, ss. 21, 26.

(*b*) *Jurisdiction.*

Local limits	India Act III of 1873, s. 10.
Original	India Act III of 1873, s. 12.
Appellate	India Act III of 1873, s. 13.
Subject to appellate control of High Court	India Act III of 1873, s. 13.
To control civil courts of district	India Act III of 1873, s. 27.
In cases of dispute as to succession of Hindoos and Mahomedans.	Mad Reg. III of 1802, s. 16 (2)-(7). Mad. Reg. V of 1829, s. 3.
As to dispute by disqualified proprietors of grounds of disqualification.	Mad. Reg. V of 1804, s. 7.
As to appointment of guardians of females and minors having property.	Mad. Reg. V of 1804, ss. 20-22. Mad. Reg. X of 1831, s. 3. Act XIV of 1858, ss. 1-4.
To hear appeals from, and suits against, village punchayets on ground of corruption, &c.	Mad. Reg. V of 1816, ss. 11, 18.
village moonsifs on ground of corruption, &c.	Mad. Reg. IV of 1816, ss. 4, 29, 35.
To hear appeal from Collector in summary suit	Mad. Act VIII of 1865, s. 69.
To determine amount of compensation for suppression of salt works.	Mad. Act VI of 1871, ss. 32—40.

(*c*) *Miscellaneous Powers and Duties.*

Decrees of village punchayets when to be executed by	Mad. Reg. V of 1816, ss. 16 (3), 17.
To execute commission for examination of witness issued by Collector in enquiry into malversation by public servants.	Mad. Reg. IX of 1822, s. 3 (2).
Power of, to imprison defaulters ordered by Collector to repay embezzled public money, &c.	Mad. Reg. IX of 1822, s. 13.
Recovery in, of certain penalties under salt law	Mad. Reg. I of 1805, s. 8.
In reference to unclaimed personal property of intestates ...	Mad. Reg. III of 1802, s. 16 (7). Mad. Reg. V of 1829, s. 3.

DISTRICT JUDGE.

General definition of	India Act I of 1868, s. 2 (12).
Special definition, of for purposes of Divorce Act	India Act IV of 1869, s. 3 (2). India Act XIII of 1879, s. 27.
When to perform duties of Registrar of Documents	India Act III of 1877, s. 10.
take charge of property of deceased and report to Administrator-General.	India Act II of 1874, s. 66. India Act IX of 1881, s. 2.
Eligible for Judgeship of Court of Survey	India Act VII of 1880, s. 14.

DISTRICT MOONSIFS.

Number of, and locality of courts of	India Act III of 1873, ss. 4, 5.
Appointment, nomination, suspension and removal of	India Act III of 1873, ss. 7, 8, 18, 20, 21, 26.
Jurisdiction of, local limits of	India Act III of 1873, s. 11.
original	India Act III of 1873, ss. 12, 14.
Subject to control of District Court	India Act III of 1873, ss. 13, 27.
Investiture of, with powers of Judge of Court of Small Causes in suit up to Rs. 50 in value.	India Act III of 1873, s. 28.
Power of, to assemble district punchayet for decision of disputes relating to boundaries, irrigation, &c., referred by Collector.	Mad. Reg. XII of 1816, ss. 5, 6.
Not to have authority over village moonsifs	Mad. Reg. IV of 1816, s. 4.
Decrees of village punchayets when to be executed by	Mad. Reg. V of 1816, s. 16 (2).
Power of, to administer oaths	Mad. Reg. IV of 1816, ss. 12, 15.
Rules applicable to pleaders in	India Act I of 1846, s. 11.
Power of, to fine pleaders subject to appeal to District Court	India Act I of 1846, ss. 10, 12.

DISTRICT PUNCHAYETS.

Cognizance by, on reference from Collector, of disputes regarding boundaries, occupation, irrigation, &c., of land.	Mad. Reg. XII of 1816, ss. 2, 5, 6.
Exemption from Court-fee of plaints and processes in suits before ...	India Act VII of 1870, s. 19 (vi).
Decree of, in suits referred by Collector, delivery of	Mad. Reg. XII of 1816, ss. 6, 8.
how set aside	Mad. Reg. XII of 1816, s. 9.
when absolutely final	Mad. Reg. XII of 1816, s. 9 (2).
how executed	Mad. Reg. XII of 1816, s. 10.

ELECTRIC TELEGRAPH.

Legislatures at Madras not to affect, without Governor-General's sanction.	24 & 25 Vic., c. 67, s. 47.
Power of Guaranteed Railway Company to make agreement with Secretary of State as to.	42 & 43 Vic., c. 41, s. 3.
Government. Exclusive privilege of establishing	India Act I of 1876, s. 4.
Rules for conduct of	India Act I of 1876, s. 7.
Power to establish on land of railway company	India Act I of 1876, s. 6.
Penalty for opposing establishment of	India Act I of 1876, s. 12.

Licensed. Establishment of	India Act I of 1876, s. 4.
Power of Government to take possession of	India Act I of 1876, s. 5.
to frame rules for conduct of	India Act I of 1876, s. 8.
Unlicensed. Penalty for maintaining, working, or using	India Act I of 1876, ss. 10, 11.
Intrusion into signal room or premises of, penalty for	India Act I of 1876, ss. 13, 14.
Malicious injury to, or obstruction of—	
Penalty for	India Act I of 1876, s. 15.
Cognizable and non-bailable offence	India Act I of 1876, s. 15.
Employment of additional police to prevent	India Act I of 1876, s. 16.
Public bound to assist police, &c., in preventing.	India Act I of 1882, s. 42 (*b*).
Sending false or fabricated message or retaining message delivered by mistake.	India Act I of 1876, ss. 21, 22.
Offences relating to, abetment of	India Act I of 1876, s. 23.
triable by Presidency Magistrate wherever committed, if witnesses are in Presidency town.	India Act X of 1882, s. 184.
Presumption as to messages sent by	India Act I of 1872, s. 88.
Officer of, public servant within ss. 161–165 of Indian Penal Code	India Act I of 1876, s. 18.
exempt from service as juror or assessor	India Act X of 1882, s. 320 (*i*).
omitting to transmit or deliver or intercepting or divulging messages.	India Act I of 1876, s. 17.
guilty of drunkenness or other misconduct	India Act I of 1876, s. 19.
sending message without payment	India Act I of 1876, s. 20.
Government not liable for default of	India Act I of 1876, s. 9.
Criminal Court how to enforce production of telegram in custody of.	India Act X of 1882, ss. 95, 96.

ENLISTMENT.

Method of proving	44 & 45 Vic., c. 58, s. 163 (*a*).
Rendered valid, in spite of irregularity, by lapse of time	44 & 45 Vic., c. 58, s. 100. India Act V of 1875.
Punishment for offences connected with	44 & 45 Vic., c. 58, s. 13. India Act V of 1869, arts. 11, 29, 32—34.

ESCHEATS.

To belong to Company in trust for Crown	16 & 17 Vic., c. 95, s. 27.
Superintendence of, vested in Board of Revenue through local agency of Collector.	Mad. Reg. VII of 1817, s. 6, &c.

EUROPEAN VAGRANT.

Power of Police to take, before Magistrate or other officer especially empowered.	India Act IX of 1874, ss. 4, 10.
Power to make declaration of vagrancy, and forward to workhouse or to place of probable employment.	India Act IX of 1874, ss. 5—7, 24.
Subsistence allowance of, while in custody	India Act IX of 1874, s. 8.
Certificate exempting European from liability to be dealt with as	India Act IX of 1874, s. 9.
Detention and discipline of, while in Government workhouse	India Act IX of 1874, ss. 11—14.
Removal of, from India	India Act IX of 1874, ss. 16—18.
Certain offences by, penalties for	India Act IX of 1874, ss. 14, 15, 19—23.
procedure on release from imprisonment for	India Act IX of 1874, s. 24.
Agreement with, for removal from India—	
form and contents of	India Act IX of 1874, s. 17, sch. II.
exempt from stamp duty	India Act I of 1879, ss. 4, 5, sch. II, No. 2 (*f*).
power to carry out	India Act IX of 1874, s. 18.
punishment of vagrant for breach of	India Act IX of 1874, s. 21.
Liability of importer of person who becomes	India Act IX of 1874, s. 31.
employer of soldier who becomes	India Act IX of 1874, s. 31.
consignee in case of person arriving in charge of animals who becomes.	India Act IX of 1874, s. 32.
Declaration of vagrancy of, proof of being	India Act IX of 1874, s. 33.
Rules for guidance in matters connected with	India Act IX of 1874, s. 36.
Provisions of sections 109 and 110, Criminal Procedure Code, not to apply to European vagrants subject to European Vagrancy Act.	India Act X of 1882, s. 111.

FORESTS.

Governor-General may constitute lands reserved forest	Mad. Act V of 1882, s. 3.
notification by, of intention to reserve land, contents of, and appointment of Forest Settlement Officer.	Mad. Act V of 1882, s. 4.
declaring forest reserved	Mad. Act V of 1882, s. 16.
Power of Local Government to declare by notification forest no longer reserved and inquiry into rights over.	Mad. Act V of 1882, s. 24.
Rights over reserved forests how acquired	Mad. Act V of 1882, s. 18.
Notification by Local Government prohibiting breaking up or clearing land for cultivation, pasturing of cattle, firing or clearing of vegetation on forest or waste land not at disposal of Government.	Mad. Act V of 1882, s. 29.
Power to close land against pasture on which fire has occurred	Mad. Act V of 1882, s. 27.
Bar of suits in Civil Courts in respect of land reserved	Mad. Act V of 1882, s. 5.
of accrual of forest rights after proclamation by Forest Settlement officer, and prohibition of clearings.	Mad. Act V of 1882, s. 7.
Existing rights of pasture, or to forest produce to be continued	Mad. Act V of 1882, s. 12.
not to be alienated without sanction	Mad. Act V of 1882, s. 19.
Rights in reserved forests may be suspended when fire caused wilfully or negligently.	Mad. Act V of 1882, s. 22.
Exemption of person or class of persons from operation of rules as to pasturage or natural produce of land at disposal of Government and not included in reserved forest.	Mad. Act V of 1882, s. 26.

Acquisition by Government of lands when owner declines to comply with regulations or directions under s. 29.	Mad. Act V of 1882, s. 31.
of forests or land under Land Acquisition Act.	Mad. Act V of 1882, s. 31.
land so acquired to be deemed to be needed for public purpose.	Mad. Act V of 1882, s. 68.
Protection of land by Government at request of owners	Mad. Act V of 1882, s. 32.
Management by Government of forests held jointly with other persons ...	Mad. Act V of 1882, s. 33.
Seizure of property in respect of which forest offence committed and of materials used in committing offence, report by Forest officer to Magistrate and his procedure thereon.	Mad. Act V of 1882, ss. 41, 42.
punishment for wrongful seizure	Mad. Act V of 1882, s. 52.
confiscation by Magistrate of such property and materials, and disposal of same, when trial concluded.	Mad. Act V of 1882, ss. 43, 44.
vesting of such property in Government	Mad. Act V of 1882, s. 48.
saving of power to release property	Mad. Act V of 1882, s. 47.
Procedure when person committing offence not known	Mad. Act V of 1882, s. 45.
when perishable property seized	Mad. Act V of 1882, s. 46.
Appeal from orders in respect of property seized and confiscated ...	Mad. Act V of 1882, s. 47.
Arrest without warrant by Forest officer or Police officer of person reasonably suspected of having been concerned in forest offence.	Mad. Act V of 1882, s. 51.
punishment for wrongful arrest	Mad. Act V of 1882, s. 52.
savings of operation of other laws	Mad. Act V of 1882, s. 54.
Presumption in proceedings under Act, that forest produce is property of Government.	Mad. Act V of 1882, s. 56.
Cattle Trespass Act, 1871, to apply to cattle trespassing in reserved forests or on land on which grazing prohibited and impounding of such cattle.	Mad. Act V of 1882, s. 57.
power to alter fines fixed by	Mad. Act V of 1882, s. 58.
Delegation of powers by Governor-General	Mad. Act V of 1882, s. 65.
Money due to Government to be recovered as if arrears of land revenue.	Mad. Act V of 1882, s. 66.
lien on forest produce for, and power to sell such produce.	Mad. Act IV of 1882, s. 67.
Forest Court, appointment and constitution of	Mad. Act V of 1882, s. 37.
Judge of	Mad. Act V of 1882, s. 38.
appeals to, procedure before, and reference by to High Court.	Mad. Act V of 1882, s. 39.
orders of, when to be final	Mad. Act V of 1882, s. 40.
Forest officer, definition of	Mad. Act V of 1882, s. 2.
person employed to manage lands protected at request of owners, or managed jointly with Government forests to be deemed.	Mad. Act V of 1882, s. 34.
power to invest with certain powers	Mad. Act V of 1882, s. 59.
certain persons bound to assist	Mad. Act V of 1882, s. 23.
power of, to interfere for purpose of preventing commission of forest offence.	Mad. Act V of 1882, s. 53.
to compound offences	Mad. Act V of 1882, s. 55.
to be deemed public servant within meaning of Penal Code.	Mad. Act V of 1882, s. 60.
indemnity to, for acts done in good faith	Mad. Act V of 1882, s. 61.
restriction on trade in timber or forest produce on engaging in forest business by.	Mad. Act V of 1882, s. 62.
District Forest Officer, definition of	Mad. Act V of 1882, s. 2
power of, to stop ways and water-courses in reserved forests.	Mad. Act V of 1882, s. 20.
Forest Settlement officer, definition of	Mad. Act V of 1882, s. 4 (c).
proclamation by, respecting intended forest, contents of, and notice by officer to owners.	Mad. Act V of 1882, s. 6.
enquiry by, into claims, mode of recording evidence and objections to claims.	Mad. Act V of 1882, s. 8.
power of, on enquiry to enter land, survey, demarcate, and compel attendance of witnesses and production of documents.	Mad. Act V of 1882, s. 9.
duties of, in respect of claims	Mad. Act V of 1882, s. 10.
appeal from decision of, to District Court, and limitation of time for.	Mad. Act V of 1882, s. 10.
to Forest Court or officer appointed to hear appeals how to be made, and limitation of time for.	Mad. Act V of 1882, ss. 14, 15.
extinction of rights not claimed before ...	Mad. Act V of 1882, s. 17.
Penalty for counterfeiting mark used by Forest officers, defacing such mark, or altering, &c., any boundary mark.	Mad. Act V of 1882, s. 50.
for pasturing cattle or allowing cattle to trespass in land closed against pasture.	Mad. Act V of 1882, s. 28.
for infringing rules as to pasturage, and natural produce of land at disposal of Government, and not included in reserved forest.	Mad. Act V of 1882, s. 26.
for trespass or damage on reserved forests	Mad. Act V of 1882, s. 21.
Power of Governor-General to make rules regulating use of pasturage or natural produce of land at disposal of Government and not included in reserved forest.	Mad. Act V of 1882, s. 26.
transit of timber within local limits, and penalties for breach of rules.	Mad. Act V of 1882, ss. 35, 36.
declaring powers of Forest officers, their procedure and regulating rewards to be paid to officers and informers from proceeds of fines and confiscations, and preservation of trees, &c., belonging to Government, but grown on lands of private persons.	Mad. Act V of 1882, s. 63.
Such rules to have force of law	Mad. Act V of 1882, s. 64.

GOVERNMENT PLEADER.

Defined	India Act XIV of 1882, s. 2.
To be agent of Government for receipt of process	India Act XIV of 1882, s. 419.

Appearance of, in suits by or against Government	India Act XIV of 1882, ss. 420, 421.
When entitled to appear in suit against public officer	India Act XIV of 1882, s. 426.
Notice of application to sue 'in forma pauperis' to be given to	India Act XIV of 1882, s. 408.
Right of, to apply for dispaupering of plaintiff in pauper suit	India Act XIV of 1882, s. 414.
May apply for enquiry into lunacy of person possessed of property in the mofussil.	India Act XXXV of 1858, s. 3.

GOVERNMENT SOLICITOR.

May prosecute without permission of Court	India Act X of 1882, s. 495.

GOVERNMENT WORKHOUSE.

Provision and superintendence of	India Act IX of 1874, ss. 11, 12.
Power to search vagrants on admission in	India Act IX of 1874, s. 13.
Summary punishment of vagrants in	India Act IX of 1874, s. 14.
Duty of governor to endeavour to obtain employment for vagrants in.	India Act IX of 1874, s. 15.
Punishment of European vagrant for leaving	India Act IX of 1874, s. 20.
Superintendent of, to act as enumerator in taking census	India Act XIV of 1880, s. 5.

GOVERNOR.

(1) *Appointment, Status, &c.*

To be appointed by Crown	21 & 22 Vic., c. 106, s. 29.
To forego pension while holding office	3 & 4 Wm. IV, c. 85, s. 77.
Passage-money and allowances of	53 Geo. III, c. 155, s. 89.
Power of Secretary of State for India to fix, alter, or abolish allowances for.	43 Vic., c. 3, s. 2.
Departure from India of, to be deemed a resignation	33 Geo. III, c. 52, s. 37. 3 & 4 Wm. IV, c. 85, s. 79.
Express resignation of office by, to be by deed	33 Geo. III, c. 52, s. 37. 3 & 4 Wm. IV, c. 85, s. 79.
Powers under patent to continue in force till new patent is issued.	1 Wm. IV, c. 4, s. 1.
Provisional appointment to office of	3 & 4 Wm. IV, c. 85, s. 61.
When Member of Council is to act in case of vacancy in office of.	3 & 4 Wm. IV, c. 85, s. 63.
Limitation of power of person on whom office devolves on death of.	33 Geo. III, c. 52, s. 50.
Not to trade	33 Geo. III, c. 52, s. 137.
Triable in England for offences	11 Wm. III, c. 12.
Governor-General to control	3 & 4 Wm. IV, c. 85, s. 65.
When to act as Extraordinary Member of Council of Governor-General.	24 & 25 Vic., c. 67, s. 9.
Not to sit in House of Commons	10 Geo. IV, c. 62, s. 1.
Becoming Governor-General	24 & 25 Vic., c. 67, ss. 50, 51.

(2) *Powers.*

Power to make, and responsibility for, orders made without Council's consent.	33 Geo. III, c. 52, ss. 47, 48.
Not to make orders which could not have been made with Council's consent.	33 Geo. III, c. 52, s. 49.
Presidency of Senior Member of Council, in absence of	39 & 40 Geo. III, c. 79, s. 12. 24 & 25 Vic., c. 67, s. 34.
May make rules for the conduct of business	24 & 25 Vic., c. 67, s. 28.
May summon additional members for making laws and regulations.	24 & 25 Vic., c. 67, ss. 29, 32.
To appoint and adjourn meetings for making laws and regulations.	24 & 25 Vic., c. 67, s. 36.
To make rules for conduct of business at such meetings	24 & 25 Vic., c. 67, s. 37.
May assent to laws and regulations of Presidency	24 & 25 Vic. c. 67, s. 39.
Power of, to seize or authorize seizures for slave-trade offences ...	36 & 37 Vic., c. 88, ss. 2, 3.
to detain and search ship suspected of offence relating to Foreign enlistment.	33 & 34 Vic., c. 90, ss. 23—26, 30.
May act as Justice of the Peace	47 Geo. III, 2, c. 68, s. 4.
Warrant of appointment of	21 & 22 Vic., c. 106, s. 29.

GOVERNOR IN COUNCIL.

Not to make war or conclude treaties without previous consent of Governor-General and Council.	13 Geo. III, c. 63, s. 9. 33 Geo. III, c. 52, s. 43.
Suspension of President and Council	13 Geo. III, c. 63, s. 9.
To transmit intelligence to Governor-General and Council	13 Geo. III, c. 63, s. 9.
to Governor-General in Council copies of orders, resolutions, and Acts.	33 Geo. III, c. 52, s. 44.
To obey orders of Governor-General in Council if not repugnant to instructions from England.	13 Geo. III, c. 63, s. 9. 33 Geo. III, c. 52, s. 41.
Extent of legislative powers of, generally	24 & 25 Vic., c. 67, s. 42.
as regards European British subjects...	34 & 35 Vic., c. 34.
Confirmation of former laws of, referring to native subjects beyond the Indian territories.	32 & 33 Vic., c. 98, s. 2.
Executive power of	3 & 4 Wm. IV, c. 85, s. 56.
Bar to issue of order for performance of duties by	India Act I of 1877, s. 45 (*f*).

HIGH COURT.

(1) *Definition.*

General definition of	India Act I of 1868, s. 2 (11).
Not generally included in term "District Judge"	India Act I of 1868, s. 2 (12).

Definition of, for purposes of Divorce Act	India Act IV of 1869, s. 3 (1).
in reference to criminal proceedings against European British subjects.	India Act X of 1882, s. 4 (i).
for purpose of determining references as to chargeability of instruments with stamp duty.	India Act I of 1879, s. 46.
amendment of, in India Act XXII of 1875 ...	India Act II of 1877, s. 1.
For cantonment in Native State or Non-Regulation Province, power to declare authority to exercise powers of.	Mad. Act I of 1866, s. 39.

(2) *Civil jurisdiction.*

(*a*) *Original.*

In regard to freeing immoveable property from incumbrances ...	India Act IV of 1882, s. 57 (e).
In suits relating to public charities	India Act XIV of 1882, s. 539.
Concurrent with District Court as to grant of probate and administration.	India Act X of 1865, s. 264. India Act V of 1881, s. 87.
To give consent to antenuptial settlement of minor in absence of father.	India Act X of 1865, s. 45.
As to dissolution of marriage of native converts	India Act XXI of 1866, s. 6.
As to questions of membership of, or validity of appointment of trustee for Religious Society.	India Act I of 1880, s. 9.
To compel inspection of Register of members of a Registered Company.	India Act VI of 1882, s. 55.
charges on property of Company.	India Act VI of 1882, s. 68.
Submission to arbitration of matters in dispute between registered Companies may be filed in.	India Act VI of 1882, s. 23.

(*b*) *Appellate.*

From what orders	India Act XIV of 1882, s. 589.
From refusal of admission of appeal to Privy Council when allowed.	India Act XIV of 1882, s. 601.
From order of District Court, as to charge of person and property of minor.	India Act IX of 1861, s. 5.
as to probate and administration ...	India Act X of 1865, s. 263. India Act V of 1881, s. 86.
From award of compensation for land compulsorily acquired ...	India Act X of 1870, ss. 30, 35.
From Parsee matrimonial court on ground of error in law, &c. ...	India Act XV of 1865, s. 42.
From Military Courts of Request beyond frontier in what cases ...	India Act XI of 1841, s. 17.
Second appeal on what grounds, and in what case to lie to ...	India Act XIV of 1882, ss. 584—586.

(*c*) *On Reference.*

Reference to, by Special Court for trial of claims to waste lands, of question of law.	India Act XXIII of 1863, s. 15.

(*d*) *Revisional.*

Powers of, to call for records and revise orders in civil suits ...	India Act XIV of 1882, s. 622.

(*e*) *Regulating and Controlling.*

Mofussil Court of Small Causes subject to general control and orders of.	India Act XI of 1865. ss. 4, 53. India Act XIV of 1882, s. 2.
Power of, to make rules of practice for its own and subordinate courts.	India Act XIV of 1882, s. 652.
&c., for Parsee matrimonial court.	India Act XV of 1865, s. 51.
for Mofussil Courts of Small Causes.	India Act XI of 1865, s. 46.
for regulating procedure for winding up, &c., of Company.	India Act VI of 1882, s. 254.
as to form and contents of proclamation of sale in execution of decree.	India Act XIV of 1882, s. 287.
as to securities in which certain legacies shall be invested by executor.	India Act X of 1865, ss. 301, 303, 305. India Act V of 1881, ss. 121, 123.
proceeds of property bequeathed (not specifically) to two or more persons in succession are to be invested.	India Act X of 1865, ss. 135.
trust moneys may be invested.	India Act II of 1882, s. 20 (f).
notice to be given to creditors before distribution of assets.	India Act X of 1865, s. 320. India Act V of 1881, s. 139.
to prescribe form of execution of conveyance or endorsement of negotiable instrument by Court.	India Act XIV of 1882, s. 262.
to prescribe form for list to be put in by parties of documents produced in evidence.	India Act XIV of 1882, s. 140.
Empowered to appoint officer to administer oaths for purpose of affidavits.	India Act XIV of 1882, s. 197.

Transfer of suits by, when plaintiff has option as to place of suing case.	India Act XIV of 1882, ss. 22—24. India Act XVII of 1879, s. 11.
in any case	India Act XIV of 1882, s. 25. India Act XVII of 1879, s. 11.
in proceedings for winding up company ...	India Act VI of 1882, ss. 218, 219.
District Delegates	India Act X of 1865, s. 235 (a). India Act V of 1881, s. 52 India Act VI of 1881, s. 2.

(*f*) *Procedure.*

In determining references as to chargeability of instruments with stamp duty.	India Act I of 1879, ss. 46—49.
Examination and impounding of instruments to whom may be delegated in.	India Act I of 1870, s. 33.
Matrimonial jurisdiction of, to be exercised under Divorce Act ...	India Act IV of 1869, s. 4.
To issue commission for examination of witness in civil suit confined in jail.	India Act XV of 1869, ss. 12, 13.
Commission for examination of witnesses not to issue to	India Act XVI of 1882, s. 386.
Appeal to, limitation of time for	India Act XV of 1877, s. 4, sch. II, Nos. 151, 153, 156.
Court-fee on application to	India Act VII of 1870, s. 6, sch. II, No. 1 (d).

(3) *Criminal Jurisdiction.*

(*a*) *Original.*

As to trial of offences	India Act X of 1882, ss. 28, 29.
As to passing sentences	India Act X of 1882, s. 31.
As to punishment for contempt of its own authority	India Act X of 1882, s. 487, &c.

(*b*) *Appellate.*

From conviction by Court of Session on matter of fact or law ...	India Act X of 1882, s. 410.
by Assistant Sessions Judges confirmed by Sessions Judge.	India Act X of 1882, s. 408.
From acquittal by any criminal court	India Act X of 1882, s. 417.
Limitation of time for appeal to	India Act XV of 1877, s. 4, sch. II, Nos. 150, 155, 157.

(*c*) *As Court of Reference.*

Powers and procedure of, on reference of sentence of death ...	India Act X of 1882, ss. 374—379.
on reference of case by Sessions Judge dissenting from verdict of Jury.	India Act X of 1882, s, 307.

(*d*) *Revisional and Controlling.*

Power of, to call for record of subordinate court	India Act X of 1882, s. 435.
to revise judicial proceedings of subordinate courts ...	India Act X of 1882, ss. 350, 439.
order fining pleader, &c., passed by subordinate court.	India Act XVIII of 1879, s. 35.
to quash commitment on point of law	India Act X of 1882, s. 215.
to set aside conviction passed on evidence not wholly recorded by convicting Magistrate.	India Act X of 1882, s. 350.
to order transfer of any case or appeal from one subordinate court to another, or to itself.	India Act X of 1882, s. 526.
to decide, in case of doubt, district in which inquiry or trial shall take place.	India Act X of 1882, s. 185.
to pass order in case in which accused, though not insane, is unable to understand the proceedings.	India Act X of 1882, s. 341.
to direct taking of or reduction of bail	India Act X of 1882, s. 498.
to direct recovery of penalty on forfeited bail bonds ...	India Act X of 1882, s. 516.
to issue rules regarding accounts, calendars, forms, and procedure of subordinate courts.	India Act X of 1882, s. 553.
Sanction of, required to prosecution of Queen's evidence for false evidence.	India Act X of 1882, s. 339.

(*e*) *Procedure and Miscellaneous.*

Transfer of any case or appeal from one to another by order of Governor-General.	India Act X of 1882, s. 527.
Power of, to send youthful offender to reformatory school ..	India Act V of 1876, s. 7.
to demand security for keeping the peace	India Act X of 1882, ss. 106, 108.
to procure attendance of prisoner required as witness or accused before itself or subordinate court.	India Act XV of 1869, ss. 3, 4, 7, 8.
to issue rules regulating its own procedure and practice ...	India Act X of 1882, s. 553.
to compel production of letter or telegram in custody of Post or Telegraph Office.	India Act X of 1882, ss. 95, 96.
Procedure in case transferred to itself from other court	India Act X of 1882, ss. 526, 527.
where Judges, on appeal, reference, or revision, are equally divided.	India Act X of 1882, ss. 378, 429.

(4) *Miscellaneous.*

Power of, to issue certificates to plead	India Act I of 1846, s. 4.
to regulate fees payable in respect of adversary's pleader.	India Act XVIII of 1879, s. 27.
to make rules for destruction of records of civil and criminal courts.	India Act III of 1879, s. 2.

Power of, to make rules subject to confirmation and sanction of Government for regulating fees on processes, and the remuneration and number of process-servers, &c.	India Act VII of 1870, ss. 20, 22.
to prescribe forms of oath to be administered in Subordinate Courts.	India Act X of 1873, s. 7.
Deposit of powers-of-attorney in	India Act VII of 1882, s. 4.
Barristers of, entitled to plead in other High Courts and courts subordinate thereto, subject to conditions.	India Act I of 1846, s. 5. India Act XX of 1853, s. 4. India Act XVIII of 1879, s. 4.
Court-fee on mooctiarnama	India Act VII of 1870, s. 6, sch. II, No. 10 (c).
When pleader may be Judge of	24 & 25 Vic., c. 104, s. 2.
Appointment of Receiver of, and of courts subordinate to	India Act XIV of 1882, s. 505.

(5) *Chartered.*

(*a*) *Establishment, Constitution and Officers.*

Act for establishing	24 & 25 Vic., c. 104.
Establishment of	24 & 25 Vic., c. 104, s. 1.
Constitution of	24 & 25 Vic., c. 104, s. 2.
Judges of, First	24 & 25 Vic., c. 104, s. 3.
Tenure of office of	24 & 25 Vic., c. 104, s. 4.
Precedence of	24 & 25 Vic., c. 104, s. 5.
Salaries, allowances, furloughs, pensions, outfit, and passsage-money of.	24 & 25 Vic., c. 104, s. 6.
provision for vacancy of office of	24 & 25 Vic., c. 104, s. 7.
empowered to hold stock or shares of Presidency banks.	India Act XI of 1876, s. 66.
to be Justices of the Peace	India Act X of 1882, s. 25.
Registrar of, non-judicial acts to be performed by	India Act XIV of 1882, s. 637.
document executed by, in official capacity, how registered.	India Act III of 1877, s. 88.
Officers of, prohibited with certain exceptions from accepting gifts, holding certain offices, and carrying on trade.	India Act XV of 1848, ss. 1—3.
Officer of, eligible for appointment of Receiver	India Act XXVIII of 1866, s. 12.
objection to be juror	India Act X of 1882, s. 278 (d).

(*b*) *General Jurisdiction and Powers.*

Defined	24 & 25 Vic., c. 104, s. 9.
Provisions applicable to Supreme Courts to apply to	24 & 25 Vic., c. 104, s. 11.
To have jurisdiction in proceedings pending in abolished courts	24 & 25 Vic., c. 104, s. 12.
May provide for exercise of jurisdiction by single Judges or division courts.	24 & 25 Vic., c. 104, s. 13.
Chief Justices of, to determine what Judges shall sit alone or in the division courts.	24 & 65 Vic., c. 104, s. 14.
To superintend and frame rules of practice for subordinate courts.	24 & 25 Vic., c. 104, s. 15. India Act XV of 1882, s. 6.
Supplemental charters may be granted within three years of establishment of.	24 & 25 Vic., c. 104, s. 17.
Extension of term for granting fresh letters patent for	28 & 29 Vic., c. 15.
Legislative powers of Governor-General in Council as to	24 & 25 Vic., c. 104, s. 11.
Governor-General in Council may alter local limits of jurisdiction of.	28 & 29 Vic., c. 15, s. 3.
Fees allowed to Accountant-General and other officers of, not affected by Court Fees Act.	India Act VII of 1870, s. 36.
Court fees leviable in, nature and amount of	India Act VII of 1870, ss. 3, 5.
when to be levied by stamps	India Act VII of 1870, ss. 3, 25.
procedure on dispute as to amount of	India Act VII of 1870, s. 5.

(*c*) *Civil Jurisdiction.*

Exclusive, in suits for things done under Army Discipline and Regulation Act.	44 & 45 Vic., c. 58, ss. 170, 189.
Appeal to Queen in Council from judgments of, when barred	India Act XIV of 1882, s. 597.
In respect of person and estate of lunatic	India Act XXXIV of 1858, ss. 12—28.
As to minors, saved	India Act IX of 1861, s. 7.
Regarding acknowledgment of deeds by married women	India Act XXXI of 1854, ss. 5—9.
In respect of transfer of property or rights vested in trustee, mortgagee, or personal representative, who is minor, lunatic, unknown, out of jurisdiction, or refuses to act.	India Act XXVII of 1866.
Payment into, of money due to minors or lunatics under Indian Trustees Act.	India Act XXVII of 1866, s. 46.
To grant certificates for collection of debts on successions of Hindoos, Mahomedans, and Booddhists.	India Act XXVII of 1860, s. 6.
In regard to order for vesting of property in trustees of charity	India Act XXVII of 1866, s. 45.
To make decree in absence of defendant who is only a trustee	India Act XXVII of 1866, s. 47.
To declare that a patent either in whole or part has been improperly obtained, or that there has been breach of special conditions on which a patent was granted.	India Act XV of 1859, ss. 24—31.
To settle dispute as to amount of fee in case of injury into application for filing specification of patent.	India Act XV of 1859, s. 3.

(*d*) *Civil Procedure.*

Application of Civil Procedure Code to, with special exceptions	India Act XIV of 1882, ss. 631, 632, 638.
Power of, to frame forms for its own proceedings	India Act XIV of 1882, s. 639.
Power to make rules as to manner of taking evidence in, and recording judgment of.	India Act XIV of 1882, s. 633.
Power to order execution of decree of, pending taxation of costs	India Act XIV of 1882, s. 634.

Processes of, when to be served by attorneys, &c.	India Act XIV of 1882, s. 636.
Procedure of, in inquisitions of lunacy	India Act XXXIV of 1858, ss. 1—11, 29.
Application to, by trustee, or personal representative, for advice and procedure thereon.	India Act XXVIII of 1866, s. 43.
Special limitation for suit by mortgagee for possession in ...	India Act XV of 1877, s. 4, sch, II, No. 146.
Unclaimed securities and moneys deposited in, transfer to Government of.	India Act XXV of 1866, ss. 1—3.
repayment of, on subsequent claim, and costs of such proceedings.	India Act XXV of 1866, s. 4. India Act V of 1870, s. 1.
Rules as to persons authorised to plead in, saved	India Act XIV of 1882, s. 635.

(*e*) *Criminal Jurisdiction.*

Judge of, to be 'ex-officio' Justice of the Peace	India Act X of 1882, s. 25.
In respect of all offences	India Act X of 1882, ss. 28, 29.
Ordinarily only upon commitment	India Act X of 1882, s. 194.
In respect of European British subject committed for trial ...	India Act X of 1882, ss. 447, 448. 34 & 35 Vic., c. 34, s. 2.
transferred by Sessions Judge.	India Act X of 1882, s. 449.
person committed for trial conjointly with European British subject.	India Act X of 1882, s. 214.
unauthorised commitment	India Act X of 1882, s. 532.
To order discharge of criminal not extradited within two months of committal.	33 & 34 Vic., c. 52, ss. 12, 17 (4).
In regard to appeal against conviction of European British subject by Magistrate or Court of Session.	India Act X of 1882, s. 408.
In regard to enquiring into detention in custody of European British subject.	India Act X of 1882, ss. 456—458.
Empowered to make rules for inspection of records of Subordinate Courts.	India Act X of 1882, s. 553.

(*f*) *Criminal Procedure, Original.*

Transferred cases may be tried with Jury	India Act X of 1882, s. 267.
Power to issue commission for evidence relative to Slave Trade ...	39 & 40 Vic., c. 46, s. 3.
Power of, to release convict who has been recommended for pardon.	India Act V of 1871, s. 35.
Warrant of arrest issued by, to be executed by police	India Act V of 1871, s. 3.
Record, &c., to be forwarded to Clerk of Crown on commitment to.	India Act X of 1882, s. 218.
Time and place for holding Sessions	India Act X of 1882, ss. 334—336.

(6) *Presidency.*

(*a*) *General.*

Appeals to Privy Council from	Letters Patent, 28th December 1865, ss. 39—42.
To comply with requisition of Government for records	Letters Patent, 28th December 1865, s. 43.
Chief Justice of, qualified for appointment of paid member of Judicial Committee.	34 & 35 Vic., c. 91, s. 1.
to be Judge of Parsee Chief Matrimonial Court.	India Act XV of 1865, s. 16.
Chief Justice and Judges of, exempt from process of arrest or imprisonment issued by Presidency Small Cause Court.	India Act XV of 1882, s. 93.
Officer of, Administrator-General is not	India Act II of 1874, s. 7.
Inclusion of, in term "District Court" as to ordinary original civil jurisdiction.	India Act XIV of 1882, s. 2.

(*b*) *Civil Jurisdiction.*

Defined	Letters Patent, 28th December 1865, ss. 11—18.
Law administered by	Letters Patent, 28th December 1865, ss. 19—21.
Admiralty and Vice-Admiralty	Letters Patent, 28th December 1865, ss. 32, 33.
Testamentary and intestate	Letters Patent, 28th December 1865, s. 34.
Matrimonial	Letters Patent, 28th December 1865, s. 35.
To make order for performance of public duties	India Act I of 1877, ss. 45—51.
In suits for infringement of copyright	India Act XX of 1847, ss. 7, 8.
In application to vary or expunge entry in registry of copyright...	India Act XX of 1847, s. 6.
Prohibition of issue of writ of 'mandamus' by	India Act I of 1877, s. 50.
In reference to petitions by Administrator-General	India Act II of 1874, ss. 14—18.
As to claim to deposits with Administrator-General after credit to Government.	India Act II of 1874, s. 63.
In suits by and against officers of Presidency Courts of Small Causes.	India Act XV of 1882, s. 21.
In other suits cognizable by Presidency Courts of Small Causes...	India Act XV of 1882, s. 22.
As to rehearing of certain suits decided by Presidency Courts of Small Causes.	India Act XV of 1882, ss. 38—40.
To authorize marriage of Christian minor;—	
within fourteen days of notice	India Act XV of 1872, s. 43.
in case of insanity of, or unjust withholding of consent by, person whose consent is necessary.	India Act XV of 1872, s. 45.
in case of refusal by marriage registrar to issue certificate.	India Act XV of 1872, s. 46.
on application of a marriage registrar in case of doubt as to authority of person forbidding.	India Act XV of 1872, s. 48.
In respect of the winding up of companies	India Act VI of 1882, ss. 130, &c.
Stay of suit in, for property seized on distress warrant	India Act XV of 1882, s. 61.

Transfer to, of claim to property seized on distress warrant ...	India Act XV of 1882, s. 63.
General provisions relating to procedure	Letters Patent, 28th December 1865, s. 37.
Special rules in case triable by Presidency Small Cause Courts ...	India Act XV of 1882, ss. 21, 22.
Summary procedure of, in suits on negotiable instruments ...	India Act XIV of 1882, s. 538, (a).
Decree or order of, limitation of time for appeal from	India Act XV of 1877, s. 4, sch. II, No. 151.
application for execution of.	India Act XV of 1877, s. 4, sch. II, No. 180.
on rehearing of Presidency Small Cause Court suit how executed.	India Act XV of 1882, s. 40.
Review of judgment, limitation of time for application for ...	India Act XV of 1877, s. 4, sch. II, No. 162.
Execution of decrees of Mofussil Courts by	India Act XIV of 1882, s. 227.
Presidency Small Cause Courts by ...	India Act XV of 1882, s. 3.
Intermediate custody of civil prisoners pending enquiries ...	India Act V of 1871, s. 13.
On rehearing of Presidency Small Cause Court suit	India Act XV of 1882, s. 39
On reference of question from Presidency Court of Small Causes...	India Act XV of 1882, s. 69.
Presidency Small Cause Courts to be under superintendence of ...	India Act XV of 1882, ss. 6, 33, 90, 91.
Rules of practice, &c., in Presidency Courts of Small Causes to be made with sanction of.	India Act XV of 1882, s. 9.
Power of, to make rules as to destruction of records of Insolvency Courts and Administrator-General's office.	India Act III of 1879, s. 3.
to make rules of practice for Court for Relief of Insolvent Debtors.	11 & 12 Vic., c. 21, ss. 3, 176.
in proceedings between mortgagor and mortgagee.	India Act IV of 1882, s. 104.
Schedules of accounts of Administrator-General to be filed of record in.	India Act II of 1874, s. 44.
Powers of, in reference to Official Trustee	India Act XVII of 1864, ss. 5—7, 10, 15 19—28, 30, 32.

(c) *Criminal Jurisdiction.*

Defined	Letters Patent, 28th Dec. 1865, ss. 22—29.
Law administered by	Letters Patent, 28th Dec. 1865, s. 30.
Circuits of Judges of	Letters Patent, 28th Dec. 1865, s. 31.
Appeal to, from conviction in certain cases by Presidency Magistrate.	India Act X of 1882, s. 411.
Presidency Small Cause Courts	India Act XV of 1882, s. 88. India Act X of 1882, s. 486.
Empowered to issue directions in the nature of a 'habeas corpus'.	India Act X of 1882, s. 491.
to authorize extension of period of security for keeping the peace or for good behaviour in Presidency Town.	India Act X of 1882, s. 123.
Chief Justice. Power of, to fine Coroner or Deputy Coroner for breach of duty.	India Act IV of 1871, s. 41.
Trials before, when to be by special jury	India Act X of 1882, s. 276, prov. (3).
On reference of question of law by Presidency Magistrate ...	India Act X of 1882, ss. 432, 433.
Intermediate custody of prisoners committed for trial to ...	India Act V of 1871, s. 12.
Delivery to Superintendent of Prisons of persons arrested under warrant issued by, pending next sitting of Court.	India Act V of 1871, s. 14.
Justice of the Peace acting under commission issued by ...	India Act X of 1882, s. 24.
To act according to justice, equity and good conscience in cases for which no specific rule exists.	Mad. Reg. V of 1802, s. 30.
To hear appeals from District Courts and Subordinate Judges ...	India Act III of 1873, s. 13.
To control and hear appeals from District Courts in regard to appointment of guardians, &c., for minors and females.	Mad. Reg. V of 1804, ss. 20, 21. Mad. Reg. X of 1831, s. 3. India Act XIV of 1858, ss. 1—4.
To hear appeals from Court of Wards	Mad. Reg. V of 1804, s. 24 (4), (5).
To decide disputes by disqualified proprietors as to grounds of exclusion from management.	Mad. Reg. V of 1804, s. 7.
Authorized to hear civil appeals and receive commitments from Collectors of Ganjam and Vizagapatam.	India Act XXIV of 1839, ss. 5, 6.
Jurisdiction and powers of, in reference to Neilgherry Hills ...	Mad. Act I of 1868, s. 10. India Act III of 1873, s. 29.
Power of, to prescribe vacations for Civil Courts	India Act III of 1873, s. 30.
to suspend Subordinate Judges	India Act III of 1873, s. 19.
to appoint, suspend, remove and fix locality of Courts of District Munsifs.	India Act III of 1873, ss. 5, 7, 20, 21.
to fix local limits of jurisdiction of, and direct preferment to Subordinate Judges of appeals from District Munsifs.	India Act III of 1873, ss. 11, 13.
Bar to jurisdiction of, in suits relating to assessment or collection of land revenue, Madras Town.	India Act XII of 1851, s. 16.
in offences relating to Abkarry or suits against or prosecutions of Abkarry officers.	India Act XIX of 1852, ss. 37, 38.

INAM COMMISSIONER.

Title-deed issued by, to be evidence of enfranchisement	Mad. Act IV of 1862, s. 2. Mad. Act IV of 1866, s. 2.
not to affect rights of occupiers of land or confer right to land.	Mad. Act VIII of 1869, s. 1.
confirmation of	32 & 33 Vic., c. 29.
Provisions of ss. 4 & 6 of Pensions Act, 1871, not to apply to inams of class referred to in Mad. Act IV of 1862, s. 1.	India Act XXIII of 1871, s. 7.

INAMDAR.

Recovery of land revenue from	Mad. Act II of 1864, s. 1, &c.
Empowered to exercise powers of landholders for recovery of rent from tenants.	Mad. Act VIII of 1865, ss. 1—3, &c.

INAM LANDS.

Receipt for rent of, paid by cultivator, exempt from stamp duty ...	India Act I of 1879, ss. 4, 5, sch. II, No. 15 (*e*).
	32 & 33 Vic., c. 29.
Confirmation of title-deeds for	Mad. Act IV of 1862, s. 1.
Enfranchised, suit for, to be brought in Civil Court	Mad. Act IV of 1866, ss. 1, 3.
	India Act XXIII of 1871, s. 7.
proof of enfranchisement of	Mad. Act IV of 1862, s. 2.
	Mad. Act IV of 1866, s. 2.
	Mad. Act VIII of 1869.
Liability of, to water-cess	Mad. Act VII of 1865, s. 4.
to village-cess	Mad. Act IV of 1864, s. 3.

INDIAN PORTS ACT.

Indian ports	India Act XII of 1875.
Appointment of anchoring station not provided for by	India Act VIII of 1878, s. 17.
Removing from moorings without authority obtained under	India Act VIII of 1878, s. 167.
Amended	India Act XIII of 1878, s. 5.
	India Act IX of 1879, s. 17.
	India Act IV of 1881, s. 2.
Rules made by Commissioners to be consistent with	India Act XV of 1879, s. 16.
Saving of s. 40 of	India Act VII of 1880, s. 72.

INDIAN REGISTRATION ACT.

Act so called	India Act III of 1877.
Saving of operation of, on documents	India Act I of 1877, s. 4 (*c*).
Amended	India Act XII of 1879, ss. 104—107.
Registration under, of void or voidable documents	India Act I of 1877, s. 39.
Appointment of new trustee under Religious Societies Act, to be registered under s. 17 of.	India Act I of 1880, s. 3.
Registrar or Sub-Registrar appointed under, when to be deemed civil court.	India Act X of 1882, s. 483.

INLAND CUSTOMS.

(1) *General.*

Power to impose duty on arms, ammunition, &c., imported by land.	India Act XI of 1878, s. 9.
on opium imported by land	India Act I of 1878, ss. 4—6.
on spirits imported from foreign territory in India.	India Act X of 1871, s. 22.
on timber	India Act VII of 1878, s. 39 (*b*).
establish searching-stations for arms, ammunition and military stores in transit between British and Foreign territory.	India Act XI of 1878, s. 11.

(2) *Madras.*

Levy of duty on goods crossing frontier	India Act VI of 1844, s. 8.
	India Act XXIX of 1857, s. 4.
	India Act XI of 1882, ss. 5, 8.
Duty on salt imported, levy and rate of	Mad. Act VI of 1871, s. 13.
	India Act XVIII of 1877, s. 5.
Power to establish stations and appoint officers for collection of...	India Act VI of 1844, ss. 8—10.
	India Act XXIX of 1857, ss. 4, 5.
Duty, manner of paying, exemption from, and ascertainment of value for purposes of.	India Act VI of 1844, ss. 9—13.
	India Act XXIX of 1857, ss. 6—16.
Adjudication of forfeitures and damages and penalties for offences by and against officers of.	India Act VI of 1844, ss. 12—15.
	India Act XXIX of 1857, ss. 16—22.

INLAND CUSTOMS ACT.

Inland customs	India Act VIII of 1875.
punishment for subsequent conviction under	India Act XII of 1882, s. 10.
charge of offence under, by whom to be preferred ...	India Act XII of 1882, s. 11.

LAKHIRAJ LANDS.

Right of Government to revenue from, reserved	Mad. Reg. XXV of 1882, ss. 4, 12, 13.
Grants in Madras town, when valid	India Act XII of 1851, s. 2.

LAND.

(1) *General.*

(*a*) *Of Rights to acquire and occupy.*

All subjects of Crown empowered to hold	India Act IV of 1837, s. 1.
Natural-born subjects may purchase	3 & 4 Wm. IV, c. 85, s. 86.

(*b*) *Compulsory Acquisition of.*

For public purposes	India Act X of 1870, s. 6.
For roads and bridges	Mad. Act II of 1868, ss. 6—9.
For forests	India Act VII of 1878, ss. 10, 37, 83.
	Mad. Act. V of 1882, ss. 10, 30.

For establishment of customs line	India Act VIII of 1875, s. 6.
For purpose of making navigable channel	India Act XXII of 1856, s. 5.
	Mad. Act I of 1870, s. 3.
For municipal purposes	India Act X of 1870, s. 6.
	Mad. Act III of 1877, s. 19.
For registered or incorporated company when allowed	India Act X of 1870, ss. 3, 46, 48.
agreement to be executed in case of ...	India Act X of 1870, ss. 47—50, 57.
For temporary purpose when allowed	India Act X of 1870, s. 43.
	India Act X of 1870, s. 44.
Of land and benefits arising out of	India Act X of 1870, s. 3.
Of house	India Act X of 1870, s. 55.

(c) *Compensation.*

Application for, exempted from court-fee	India Act VII of 1870, s. 19, xxii.
Determination of, matters to be considered and neglected in ...	India Act X of 1870, ss. 13, 24, 25.
in case of incomplete acquisition	India Act X of 1870, s. 54.
Apportionment of	India Act X of 1870, ss. 37—39.
Additional percentage on	India Act X of 1870, s. 42.
Payment of, manner of making	Mad. Act II of 1868, ss. 7, 8.
	India Act X of 1870, ss. 40, 41, 56.
Rules regarding, applied to determination of compensation— for infringement of private rights in exercise of Government right to mines, &c.	
for removal of obstructions in fairways	India Act XVI of 1881, s. 10.
Payment of, time for making	India Act X of 1870, ss. 41, 42.
Partly or wholly in land when allowable	India Act VII of 1878, s. 10 (*d*).
Suit for, limitation of time for	India Act XV of 1877, s. 4, sch. II, Nos. 17, 18.

(*d*) *Summary inquiry by Collector.*

After declaration of acquisition	India Act X of 1870, ss. 6—14.
In case of damage done during preliminary survey, &c.	India Act X of 1870, ss. 5—14.
In case of order for temporary acquisition	India Act X of 1870, s. 43.
On restoration of land after temporary acquisition	India Act X of 1870, s. 44.
Reference to Court when and how to be made	India Act X of 1870, ss. 15, 18, 38, 43, 45.
Rules for guidance of Collector, &c.	India Act X of 1870, s. 59.
Forest Settlement officer to be deemed Collector, for acquisition of land for reserved forests.	India Act VII of 1878, s. 10 (*a*).

(*e*) *Inquiry by Court.*

To what, reference to be made generally	India Act X of 1870, s. 3.
Assessors, appointment and fees of	India Act X of 1870, ss. 19—22, 31.
and Judge, matters for joint decision of	India Act X of 1870, ss. 21, 27—30.
Judge, matters for sole decision of	India Act X of 1870, ss. 39, 45.
Award of, determination and form of	India Act X of 1870, ss. 27—30, 34.
special rules regarding amount of	India Act X of 1870, s. 26.
exempt from stamp duty	India Act X of 1870, s. 57.
bar of suit to set aside	India Act X of 1870, s. 58.
appeal from, when, within what time and to what Court.	India Act X of 1870, ss. 30, 35, 39.
court-fee payable on appeal against	India Act VII of 1870, s. 8.
Procedure to be observed	India Act X of 1870, ss. 19, 23, 27, 36, 51.
Costs, special rules regarding	India Act X of 1870, ss. 32—34, 42.
Practitioners in	India Act X of 1870, s. 23.

(*f*) *Means for enforcing.*

Enforced by Magistrate or Commissioner of Police	India Act X of 1870, s. 53.
Preliminary investigation and entry for purposes of survey, and penalty for obstruction thereof.	India Act X of 1870, ss. 4, 5, 46, 52.
Special rules regarding suits for things done in pursuance of the Act.	India Act X of 1870, s. 58.
Power to take, and time of taking possession	India Act X of 1870, ss. 16, 17, 41, 44.
	Mad. Act II of 1868, s. 7.
Penalty for obstruction	India Act X of 1870, s 52.

(*g*) *Advances by Government for Improvement of.*

"Improvement," definition of	India Act XXVI of 1871, s. 3.
	India Act XXI of 1876, s. 2.
Application for advance to be made to Collector	India Act XXVI of 1871, ss. 4, 18.
by landlord, procedure on	India Act XXVI of 1871, ss. 4, 5, 18.
trustee to be deemed landlord for purposes of.	India Act II of 1882, s. 36.
by tenant, procedure on	India Act XXVI of 1871, ss. 7—12, 18.
Certificate of advance, when may be sanctioned by Collector ...	India Act XXVI of 1871, ss. 6, 10, 13, 18.
contents of	India Act XXVI of 1871, s. 14.
	India Act XXI of 1876, s. 3.
exempted from registration	India Act III of 1877, s. 17 (l).
copy of, to be sent to, and filed by registering officer.	India Act III of 1877, s. 89.
Instrument of collateral security, exempted from registration ...	India Act III of 1877, s. 17 (l).
from stamp duty ...	India Act I of 1879, ss. 4, 5, sch. I, No. 12 (*a*).
Advances, recovery of	India Act XXVI of 1871, s. 15.
	India Act XXI of 1876, s. 4.
repayment of, manner of	India Act XXVI of 1841, s. 18.
costs recoverable as	India Act XXVI of 1871, s. 16.
interest on	India Act XXVI of 1871, s. 18.
inspection of works carried out by	India Act XXVI of 1871, s. 18.
Pledge by landlord of land as security for advance to tenant, not to affect question of ownership as between landlord and tenant.	India Act XXVI of 1871, s. 17.

Delegation of powers by Collector to subordinate	India Act XXI of 1876, s. 5.
Rules by Local Government for regulation of	India Act XXVI of 1871, s. 18.

(2) *Special for Madras.*

To be security for land revenue	Mad. Act II of 1864, s. 2.
Transfer of, invalid unless registered by Collector	Mad. Reg. XXV of 1802, s. 8. Mad. Reg. XXVI of 1802, ss. 2, 3.
Temporarily settled, unauthorized alienations of, to be reported to Board of Revenue.	Mad. Reg. II of 1803, ss. 41, 44.
Disputes regarding occupation, cultivation or irrigation of, cognizable by Collector with aid of village or district punchayets.	Mad. Reg. XII of 1816.
Attachment and sale of, by Collector in execution of decree ...	Mad. Reg. II of 1803, ss. 16—23.

LAND ACQUISITION.

Land Acquisition Act	India Act X of 1870.
Acquisition of forests under	Mad. Act V of 1882, s. 31.
Land acquired under, for purposes of Madras Forest Act to be deemed to have been acquired for a public purpose under.	Mad. Act V of 1882, s. 68.

LANDHOLDER.

Liability of, for revenue after unregistered transfer	Mad. Reg. XXV of 1802, s. 8. Mad. Reg. XXVI of 1802, s. 3.
Right of, to kill wild male elephants on private lands	Mad. Act I of 1873, s. 5.
Construction and maintenance of boundary-marks by	India Act XXVIII of 1860, ss. 2—8, 30.
Bound to give receipts for rent	Mad. Reg. XXV of 1802, s. 14. Mad. Act VIII of 1865, s. 81.
Penalty for unauthorized exaction by, of excess of rent	Mad. Act VIII of 1865, s. 5.
Right of, to recover portion of local rates from tenant	Mad. Act IV of 1871, ss. 47—50.
Not empowered to eject tenants except by decree of Civil or Revenue Court.	Mad. Act VIII of 1865, s. 12.
Prohibition against Covenanted Civil Servants making or taking loan to or from.	Mad. Reg. XIX of 1802, s, 2. Mad. Reg. II of 1803, s. 61.

LAND IMPROVEMENT.

(1) *General.*

Advances for purposes not within scope of, or not specified in ...	India Act II of 1876, s. 58 (*f*). India Act X of 1879, s. 3.
recovery of, for purposes not specified in	India Act X of 1876, s. 17. India Act XII of 1878, s. 8.
Setting aside of repeal effected by	India Act X of 1876, s. 17.
Act for amendment of	India Act XXI of 1876.
Power to make rules as to advances for purposes not specified in.	India Act XV of 1880, s. 4.
Trusts Act not to preclude investment on land pledged for advances under.	India Act II of 1882, s. 21.
When trustee to be deemed landlord in possession	India Act II of 1882, s. 36.

(2) *Special for Madras.*

Power of landholder to raise rent on account of, made by himself or Government.	Mad. Act VIII of 1865, s. 11. Mad. Act II of 1871, s. 1.
Puttahs at low rates for land granted on condition of tenant making—	
binding on Government	Mad. Act II of 1864, s. 32.
successors of landholders	Mad. Act VIII of 1865, s. 11.

LANDLORD AND TENANT.

(1) *Nature and Proof of the Contract.*

Exchange of puttahs and moochilkas, how far compulsory and how enforced.	Mad. Reg. XXV of 1802, s. 14. Mad. Act VIII of 1865, ss. 3—10, 13, 86.
Rights of cultivators not affected by permanent settlement ...	Mad. Reg. IV of 1882.
Contracts with, and payments by, tenant how far binding on Collector and purchaser on attachment and sale of land for arrears of land revenue.	Mad. Act II of 1864, ss. 32, 33, 41. Mad. Act VI of 1867, s. 23.

(2) *Payment and Recovery of Rent.*

Landholders bound to give receipts for rent	Mad. Reg. XXV of 1802, s. 14. Mad. Act VIII of 1865, s. 81.
Power to direct tenant to furnish security for rent	Mad. Act VIII of 1865, s. 82.
Rules to govern decisions as to rates of rent, in both Revenue and Civil Courts.	Mad. Act VIII of 1865, ss. 11, 87. Mad. Act II of 1871, s. 1.
Arrears of rent, interest chargeable on	Mad. Act VIII of 1865, s. 37.
recovery of, by distress and sale of movable property and crops of tenant.	Mad. Act VIII of 1865, ss. 2, 13, 14—36.
by sale of defaulter's interest in land in case of certain landholders.	Mad. Act VIII of 1865, ss. 38—40.
arrest and imprisonment of tenant for	Mad. Act VIII of 1865, ss. 45—48.
Unauthorised exaction by landholder in excess of, penalty for ...	Mad. Act VIII of 1865, s. 5.

(3) *Mutual Rights and Liabilities in respect of Compulsory Payments.*

Liability of tenant's movable property on land in Madras town, for land revenue assessed on such land.	Mad. Act VI of 1867, s. 4.

Right of tenant in Madras town to deduct from rent any payment of land revenue.	India Act XII of 1851, s. 8. Mad. Act VI of 1867, ss. 17, 19.
Right of landholder to recover portion of local rates from tenant.	Mad. Act II of 1864, s. 11. Mad. Act IV of 1871, ss. 47, 50.

LAND REVENUE.

(1) *Assessment.*

Permanent	Mad. Reg. XXV of 1802, ss. 1—3, 6.
Temporary, rules regulating	Mad. Reg. II of 1803, ss. 38, 39.
requires confirmation of Government	Mad. Reg. I of 1803, s. 36.
duties of Board of Revenue as to	Mad. Reg. I of 1803, ss. 35—37.
Apportionment of, on transfer or separation of lands permanently assessed.	Mad. Reg. XXV of 1802, s. 9. Mad. Reg. II of 1803, ss. 16—23.
on sale for arrears of land revenue	Mad. Act II of 1864, ss. 45, 46.
landholders and curnum to give requisite information for.	Mad. Reg. XXV of 1802, s. 9. Mad. Act II of 1864, s. 45.
by Collector, subject to confirmation of Board of Revenue.	Mad. Reg. II of 1802, ss. 16—18. Mad. Act II of 1864, ss. 45, 46. Mad. Act I of 1876, ss. 1—7.
Power of Government to re-adjust	Mad. Act I of 1876, s. 8.
Questions as to rate or amount of, not cognizable by Civil Court...	Mad. Act II of 1864, s. 58.
Zemindars not empowered to exempt from, or to resume ...	Mad. Reg. XXV of 1802, ss. 12, 13.

(2) *Collection and Recovery of Arrears.*

Priority of Government claim for, over other charges, on land, crops, &c.	Mad. Act II of 1864, ss. 2, 17, 32.
When and to whom, and in what instalments payable	Mad. Act II of 1864, s. 3.
Remission of, requires sanction of Government	Mad. Reg. I of 1803, s. 55.
Suspension of collection of, powers of Board of Revenue as to authorizing.	Mad. Reg. I of 1803, s. 56.
Receipts to be given for	Mad. Act II of 1864, s. 56.
Arrears of, defined	Mad. Act II of 1864, ss. 3, 4.
Proceedings for recovery of arrears—	
ordinarily	Mad. Act II of 1864, ss. 5, 6.
where defaulter resides out of district	Mad. Act II of 1864, s. 57.
in case of proprietor being native officer or soldier	Mad. Reg. VIII of 1817, s. 9.
against sureties	Mad. Act II of 1864, ss. 50, 57.
postponement or stay of, on security or payment of deposit, by owner, tenant or person interested.	Mad. Act II of 1864, ss. 10, 11, 35, 37, 47.
right of tenant or person interested to recover from owner payment made to stop.	Mad. Act II of 1864, ss. 11, 35, 37.
suits arising out of, limitation of time for ...	Mad. Act II of 1864, s. 59.
survival of, against Collector.	Mad. Act II of 1864, s. 60.
Power to prevent removal of crops in case of revenue payable in kind.	Mad. Act II of 1864, s. 51.
Personal property and lands of zemindars liable to sale for—	
generally	Mad. Reg. XXV of 1802, ss. 6, 7.
not in case of disqualified proprietors under Court of Wards.	Mad. Reg. V of 1804, s. 14 (4).
minors	Mad. Reg. X of 1831, s. 2 (1).
Sale of movable property for—	
Power to order	Mad. Act II of 1864, s. 5.
Demand before	Mad. Act II of 1864, s. 8.
Powers, procedure and liability of officer making distress for.	Mad. Act II of 1864, ss. 9—21.
Proclamation, time and conduct of	Mad. Act II of 1864, ss. 22—24.
Sale of land and buildings for—	
Power to order	Mad. Act II of 1864, ss. 5, 26, 44.
Demand before	Mad. Act II of 1864, s. 25.
Attachment in order to	Mad. Act II of 1864, ss. 26, 27.
Management instead of, and powers and duties of manager.	Mad. Act II of 1864, ss. 28—34. Mad. Act VIII of 1865, s. 85.
Procedure at, and conduct of	Mad. Act II of 1864, ss. 36, 37.
Purchaser at—	
Registration and delivery of certificate and possession to.	Mad. Act II of 1864, ss. 38—40.
Contracts and incumbrances how far binding on ...	Mad. Act II of 1864, ss. 41, 42.
Apportionment of assessment on	Mad. Act II of 1864, ss. 45, 46.
Effect of, as regards arrears due to previous owner...	Mad. Act II of 1864, s. 43.
Imprisonment of person for, power to order, period of and procedure for.	Mad. Act II of 1864, ss. 5, 48, 49.

(3) *Madras Town.*

Inclusion in, of quit-rents, ground-rents, &c.	India Act XII of 1851, s. 16. Mad. Act VI of 1867, s. 1.
Priority of Government claim for, over other charges on land ...	India Act XII of 1851, s. 9. Mad. Act VI of 1867, s. 3.
Assessment of lands liable to, rate of, exemption from and measurement for.	India Act XII of 1851, ss. 1—6, 12.
Assessment and collection of, obstruction or contempt of Revenue officers in.	India Act XII of 1851, ss. 13, 14.
control of Collector in	India Act XII of 1851, ss. 3, 6, 14, 15.
suits relating to, cognizable by Civil Courts in Chingleput, and not by High Court.	India Act XII of 1851, ss. 16, 17. Mad. Act VI of 1867, ss. 31, 32.
Collection of, by attachment and sale of movable property or land, and procedure therefor.	Mad. Act VI of 1867, ss. 4—26.

Arrears of, claim to, limitation of time for	India Act XII of 1851, s. 11.
recovery of, postponement or stay of proceedings for, on security, payment or deposit.	India Act XII of 1851, s. 10. Mad. Act VI of 1867, ss. 17, 19, 27.
right of tenant or person having interest in land, to recover payment of, from owner of land.	India Act XII of 1851, s. 8. Mad. Act VI of 1867, ss. 17, 19.

LEGISLATIVE COUNCIL.

Meetings of, at Presidency	24 & 25 Vic., c. 67, s. 34.
Appointment and adjournment of	24 & 25 Vic., c. 67, s. 36.
Rules for conduct of business at	24 & 25 Vic., c. 67, s. 37.
Business to be transacted at	24 & 25 Vic., c. 67, s. 38.
Assent of Governor-General to laws made at	24 & 25 Vic., c. 67, s. 40.

LIGHT-HOUSE.

Mischief by destroying, moving, or rendering less useful	India Act XLV of 1860, s. 433.
Exhibition of false light	India Act XLV of 1860, s. 281.

MADRAS PIER.

Tolls for use of, rates, notification, collection, and penalty for evasion of.	Mad. Act V of 1863, ss. 1—5, 8.
Penalty for, and procedure on, damage caused to—	
wilfully	Mad. Act V of 1863, s. 6.
by vessels fouling	Mad. Act V of 1863, ss. 9, 10.
by boats, timber or other floating matter fouling ...	Mad. Act VII of 1871.
Bye-laws relating to, making and publication of, and penalty for breach of.	Mad. Act V of 1863, s. 14.
Power to lay and fence tramway from custom-house to	Mad. Act V of 1863, ss. 11, 12.
Power of police to remove obstructions in approaches to	Mad. Act V of 1863, s. 13.
Offences relating to, cognizable by Presidency Magistrate	Mad. Act V of 1863, s. 15.
Power to extend provisions for protection, &c., of, to other piers ...	Mad. Act VII of 1871, s. 7.
Penalty for cutting adrift boat, &c., made fast to	Mad. Act V of 1863, s. 7.

MADRAS PORT DUES ACT.

Port dues	India Act IV of 1881.

MADRAS PORTS.

Cargo boats in, police charge in addition to hire of, leviable	Mad. Act I of 1881, ss. 2, 6—9.
not to convey goods unless accompanied by police officer ...	Mad. Act I of 1881, ss. 3—5.
Passenger boats in, power to apply provisions regarding cargo boats to ...	Mad. Act I of 1881, s. 13.
Boats carrying mails in, not subject to restrictions	Mad. Act I of 1881, s. 10.
Powers of ordinary police in	Mad. Act I of 1881, s. 12.
Power to withdraw Ports Police Act from	Mad. Act. I of 1881, s 14.

MADRAS PORT POLICE ACT.

Port police	Mad. Act. I of 1881.

MAGISTRATES.

(1) *Appointment, Status, and Privileges.*

General definition of	India Act I of 1868, s. 2 (13).
Appointment of, and local limits of jurisdiction	India Act X of 1882, s. 12.
Suspension and removal of	India Act X of 1882, s. 26.
Subordination of, to District and Sub-divisional Magistrate ...	India Act X of 1872, s. 17.
Investiture of police officers with certain powers of	India Act X of 1882, s. 14. India Act XXIV of 1859, s. 7.
Judge of Court of Small Causes with powers of	India Act XI of 1865, s. 51.
Not generally subordinate to Court of Session	India Act X of 1882, s. 17.
Subordination of, to Court of Session as regards submission of records.	India Act X of 1882, s. 485.

(2) *Jurisdiction.*

(*a*) *Preliminary to Trial.*

To entertain complaints and issue process against European British subject.	India Act X of 1882, s. 445.
To issue warrant for arrest of offender in Foreign State	India Act XXI of 1879, ss. 12—17.
To arrest person committing offence in his presence	India Act X of 1882, s. 64.
To arrest foreig ner or native British subject travelling without license, under certain circumstances.	India Act III of 1864, ss. 14, 18, 19.
To issue warrant for arrest and recommitment of convict on revocation of license to be at large.	India Act V of 1871, ss. 25—28.
To record confession of accused	India Act X of 1882, s. 164.
To authorize detention of accused beyond 24 hours	India Act X of 1882, s. 167.
To issue search warrant in course of enquiry	India Act X of 1882, s. 96.
As to search, seizure, &c., of illicit salt	Mad. Reg. I of 1805, ss. 13, 14, 16. Mad. Act I of 1882, s. 3.

(*b*) *Preventive.*

In respect of wandering and dangerous lunatics, or in case of neglect and cruel treatment of lunatics.	India Act XXXVI of 1858, ss. 4, 5, 10.
To disperse unlawful assemblies by order	India Act X of 1882, s. 127.
by use of civil force	India Act X of 1882, s. 128.
by use of military force ...	India Act X of 1882, ss. 129—132. Mad. Reg. XI of 1816, s. 47.
To enrol special police on application of Inspector of Police ...	India Act V of 1861, s. 17. India Act XXIV of 1859, s. 16.
To disarm person illegally going armed	India Act XI of 1878, s. 13.
May obtain assistance from private persons	India Act X of 1882, s. 42.

(*c*) *As to Trial of Offences and passing Sentences.*

Ordinary powers of the various grades of	India Act X of 1882, s. 36.
Additional powers conferrable on various grades of	India Act X of 1882, ss. 37, 38.
Powers of, as to passing sentences generally	India Act X of 1882, s. 32
in case of simultaneous convictions.	India Act X of 1882, s. 35.
of imprisonment in default of payment of fine.	India Act X of 1882, s. 33.
In respect to trial of offences	India Act X of 1882, ss. 28, 29. 12 & 13 Vic., c. 96.
As to offences committed at sea	23 & 24 Vic., c. 88.
As to offences relating to census	India Act XIV of 1880, s. 12.
In cases connected with salt excise	Mad. Act VI of 1871, s. 23. Mad. Act I of 1882, ss. 3, 18.
In offences under Police Act	Mad. Act XXIV of 1859, s. 50.
Over European British subjects	India Act X of 1882, ss. 443, 450.

(*d*) *Of a Civil nature.*

Saving of jurisdiction of, as to debts	India Act XI of 1865, s. 12.
In disputes between master and apprentice	India Act XIX of 1850, ss. 13—18.
In case of fraudulent breach of contract by workmen	India Act XII of 1859, ss. 1—5.
In disputes between masters and workmen employed in construction of sanctioned public work.	India Act IX of 1860, ss. 1, 2, 3, 8.
To authenticate power-of-attorney, to present document for registration.	India Act III of 1877, ss. 33, (b), (c).

(*e*) *Executive and Miscellaneous.*

In regard to licensing, &c., of stage carriages	India Act XVI of 1861, ss. 23, 10.
As to assessment of damage to ferry by rash navigation	India Act XVII of 1878, s. 31.
As guardian for the purpose of binding as apprentice orphan or abandoned poor child or child convicted of vagrancy or petty offence.	India Act XIX of 1850, s. 3. India Act I of 1879, ss. 4, 5, sch. II, No. 12 (c).
To enforce surrender of land acquired for a public purpose ...	India Act X of 1870, s. 53.
To enforce judgment of Collector for ejectment or re-instatement of tenant.	Mad. Act VIII of 1865, s. 73.
As to dispute relating to amount of salvage	India Act VII of 1880, s. 75.
To levy costs of additional police	India Act XXIV of 1859, s. 15.
To levy fines, &c., imposed by customs officers	India Act VIII of 1878, s. 193.
Under Salt Laws Amendment Act how conferred	Mad. Act I of 1882, s. 18.
To execute summons to witness to appear before court-martial ...	India Act V of 1869, art. 122.

(3) *Procedure.*

In cases between masters and workmen employed on public works.	India Act IX of 1860, ss. 4—7.
Order of, for levy of penalties in cases connected with stage carriages, final.	India Act XVI of 1861, s. 15.
Presumption as to record, purporting to be signed by	India Act I of 1859, s. 111. India Act I of 1872, s. 80. India Act VIII of 1876, s. 43.
Court-fee on application to, by person having dealings with Government and in relation to such dealings.	India Act VII of 1870, s. 6, sch. II, No. 1 (a).
Empowered to administer oath for purposes of affidavit	India Act XIV of 1882, s. 197.
Inspection of immigrants by	India Act III of 1876, ss. 56, 57. India Act I of 1882, ss. 114, 127.
Prohibited from making, or taking, loan to or from subordinates, landholders, ryots and residents within jurisdiction.	Mad. Reg. XIX of 1802, s. 2. Mad. Reg. II of 1803, s. 61.
Presumption as to power-of-attorney purporting to be signed by..	India Act I of 1872, s. 85.
Prescription of seals for use of	Mad. Act VI of 1865, s. 1.
Search for arms in presence of	India Act XI of 1878, ss. 25, 30.
Committal by person charged with committing State offence to commission for trial of offence.	India Act XI of 1857, ss. 3, 4.
Jurisdiction of, to arrest for offence committed in territorial waters.	41 & 42 Vic., c. 73.
In enquiry into offences under Forest Act	Mad. Act V of 1882, ss. 41, 49.

(4) *Magistrate of First Class.*

Jurisdiction of, in respect to trial of offences	India Act X of 1882, ss. 28, 29.
passing sentences	India Act X of 1882, ss. 32, 33, 35.
in relation to trial of, and passing sentence on, European British subjects.	India Act X of 1882, ss. 443, &c.
in cases under Parsee Marriage and Divorce Act.	India Act XV of 1865, s. 46.
Indian Companies Act	India Act VI of 1882, s. 252.

Jurisdiction of, in cases connected with merchant shipping ...	India Act I of 1859, ss. 35, 44, 55, 56, 87, 88, 112.
	India Act IV of 1875, ss. 3, 5.
under Opium Act	India Act I of 1878, s. 3.
under Petroleum Act	India Act VII of 1881, s. 17.
of issuing private bill or note payable to bearer on demand.	India Act III of 1871, s. 22.
Ordinary powers of	India Act X of 1882, s. 36.
Additional powers conferrable on	India Act X of 1882, ss. 37, 38.
Appeal to Court of Session or High Court from conviction of European British subject by.	India Act X of 1882, s. 408.
from other convictions.	India Act X of 1882, s. 408.
Power of, to send youthful offender to reformatory school ...	India Act V of 1876, ss. 7, 8.
to issue search warrant for opium	India Act I of 1878, s. 19.
To recover fines imposed by court-martial on volunteers	India Act XX of 1869, ss. 4, 22.
May be invested with jurisdiction and powers in reference to registration of emigrants and offences connected with emigration.	India Act III of 1871, s. 85.
appointed presiding Judge of Court of Survey	India Act VII of 1880, s. 14.

(5) *Magistrate of Police.*

References to, to be interpreted of Presidency Magistrate ...	India Act X of 1882, s. 3.

(6) *Magistrate of Second Class.*

Jurisdiction of, in respect to passing sentences	India Act X of 1882, ss. 32, 33, 35.
Ordinary powers of	India Act X of 1882, s. 36.
Extraordinary powers conferrable on	India Act X of 1882, ss. 37, 38.
Power of, to try European British subject in case of certain offences.	India Act IX of 1874, ss. 3, 14, 15, 19–29.
Jurisdiction of, in regard to trial of offences generally	India Act X of 1882, ss. 28, 29.
to settle disputes as to chargeability with coast light dues.	India Act IX of 1879, s. 14.
as to trial of offences and adjudication of seizures under excise law.	India Act X of 1871, ss. 3, 47, 50, 74, 75.
as to offences under	
Native Passenger Ships Act ...	India Act VIII of 1876, ss. 5, 39, 40.
Opium Act	India Act I of 1878, s. 4.
Indian Ports Act	India Act XII of 1875, s. 3.
Petroleum Act, may be conferred.	India Act VIII of 1881, s. 17.
relating to Railways	India Act IV of 1879, s. 50.
under Registration Act	India Act III of 1877, s. 83.
	India Act XII of 1879, s. 106.
relating to Salt Revenue	India Act XII of 1882, ss. 11, 14, 25.
to Stamps	India Act I of 1879, s. 70.
Submission of case by, to District or Sub-divisional Magistrate for heavier punishment.	India Act X of 1882, s. 349.

(7) *Magistrate of Third Class.*

Jurisdiction of, in respect to passing sentences	India Act X of 1882, ss. 32, 33, 35.
Ordinary powers of	India Act X of 1882, s. 36.
Extraordinary powers conferrable on	India Act X of 1882, ss. 37. 38.
Jurisdiction of, in regard to trial of offences generally	India Act X of 1882, ss. 28, 29.
Submission of case by, to District or Sub-divisional Magistrate for heavier punishment.	India Act X of 1882, s. 349.

MEDICAL RELIEF.

(1) *Contagious Diseases.*

Restrictions on conveyance of persons suffering from, in hackney carriage.	Mad. Act III of 1879, s. 38.
Registration, medical examination and segregation of, and hospitals for persons suffering from.	India Act XIV of 1868.
Payment by Municipal committees for maintenance, &c., of lock-hospitals for.	India Act XXVI of 1868, s. 19.
Prevention of, in Military cantonments	India Act III of 1880, s. 27.
	Mad. Act I of 1866, s. 19.

(2) *Hospital.*

Powers of police in Presidency towns in respect of persons taking spirits into.	India Act XIII of 1856, ss. 48, 49.
	Mad. Act VIII of 1867, ss. 25, 26.
Bond guaranteeing income for, exempt from stamp duty ...	India Act I of 1879, ss. 4, 5, sch. II, No. 8 (*c*).
For contagious diseases	India Act XIV of 1868.
	India Act XXVI of 1868, s. 19.

(3) *Hospital Apprentices.*

To be treated as warrant officers for purposes of discipline, &c. ...	44 and 45 Vic., c. 58, s. 180 (*g*).

(4) *Hospital Assistant.*

Indian Articles of War applicable to	India Act V of 1869, part I (*d*).
To be attested	India Act V of 1869, art. 2.
Special rules regarding composition and powers of court-martial, for trial of.	India Act V of 1869, arts. 21, 85 (*a*), 92, 145, 146.

(5) *Lunatic Asylums.*

(*a*) *Establishment and Maintenance of Lunatic Asylums.*

Establishment of public and licensing of private	India Act XXXVI of 1858, s. 1.
Management of, and committee of visitors for	India Act XXXVI of 1858, s. 2.
Duties and powers of visitors for	India Act. XXXVI of 1858, ss. 3, 9, 10, 12.

(*b*) *Reception and Detention of Lunatics in Lunatic Asylums.*

Order and certificate for reception of private patients in Presidency towns.	India Act XXXVI of 1858, s. 7.
in Mofussil.	India Act XXXVI of 1858, s. 8.
of wandering, dangerous and ill-treated lunatics.	India Act XXXVI of 1858, ss. 4—6.
Transfer of lunatic prisoners to	India Act V of 1871, s. 31.
Reception, discharge, and expenses of military lunatics detained in	India Act XI of 1877, ss. 3—9.
European military lunatics to be detained in, at Madras	India Act XI of 1877, s. 3.
Criminal lunatics in, detention of	India Act X of 1882, ss. 466, 471.
Inspection of, by visitors of asylums, and certificate as to ...	India Act X of 1882, ss. 472—474.
Maintenance of pauper lunatics in	India Act XXXVI of 1858, s. 14.
Discharge of persons detained in, on recovery	India Act XXXVI of 1858, s. 9. India Act V of 1871, s. 31.
on undertaking by relative for due treatment.	India Act XXXVI of 1858, s. 10.
Detention and transfer of persons detained in	India Act XXXVI of 1858, ss. 11, 13.

(6) *Medical Attendance.*

In case of officer or soldier	26 and 27 Vic., c. 57, s. 4.

(7) *Medical Officer.*

Exemption of, from service as juror or assessor	India Act X of 1882, s. 320 (*h*).
To certify as to fitness of offender to undergo sentence of whipping.	India Act X of 1882, s. 394.

(8) *Medical Practitioners.*

Powers of legislature to enforce registration of	31 and 32 Vic., c. 29.
Application of Municipal funds to training and employment of ...	Mad. Act I of 1884, s. 33. Mad. Act IV of 1884, s. 113.
Application of Local funds to training and employment of ...	Mad. Act V of 1884, s. 95.
Exemption of spirits sold by, for medicinal purposes from ordinary excise rules.	Mad. Act III of 1864, s. 27.
Sale of medicines in military cantonments	India Act III of 1880, s. 20. Mad. Act I of 1866, s. 36.

(9) *Medical Retiring Fund.*

Secretary of State may accept transfer of assets of	29 and 30 Vic., c. 18, s. 3.

MEMBER OF COUNCIL.

Appointment of, how made	16 & 17 Vic., c. 95, s. 20.
to be subject to Crown's approbation	16 & 17 Vic., c. 95, s. 20.
Directors' power to revoke and suspend	3 & 4 Wm. IV, c. 85, s. 57.
reduce number of	3 & 4 Wm. IV, c. 85, s. 57.
Temporary supply of vacancy in office of	24 & 25 Vic., c. 67, s. 27. 4 Wm. IV, c. 85, s. 46.
Salary of permanent	16 & 17 Vic., c. 95, s. 35. 24 & 25 Vic., c. 67, s. 4.
temporary	24 & 25 Vic., c. 67, s. 27.
To forego pension while holding office	24 & 25 Vic., c. 67, s. 77
Passage-money and allowances of	53 Geo. III, c. 155, s. 89.
powers of Secretary of State for India to fix, alter or abolish.	43 Vic., c. 3, s. 2.
Provisional appointment to office of	33 Geo. III, c. 52. s. 34. 3 & 4 Wm. IV, c. 85, s. 61. 24 & 25 Vic., c. 67, s. 5.
Not to accept presents	13 Geo. III, c. 63, s. 23.
Supreme Court incompetent to try indictments against	13 Geo. III, c. 63, s. 15.
Exempt from arrest and imprisonment	13 Geo. III, c. 63, s. 17.
Not to trade	33 Geo. III, c. 52, s. 137.
Departure of, for Europe to be a resignation	33 Geo. III, c. 52, s. 37. 3 & 4 Wm. IV, c. 85, s. 79.
Resignation of, to be by deed	33 Geo. III, c. 52, s. 37. 3 & 4 Wm. IV, c. 85, s. 79.
Leave of absence to, grant of and salary during	24 & 25 Vic., c. 67, s. 26.

MILITARY CANTONMENTS.

(1) *Constitution of and Taxation in.*

Power to declare detachment stations to be	Mad. Act. I ef 1866, s. 25.
Appointment of, as registration sub-district	India Act III of 1877, s. 9. Mad. Act I of 1866, s. 11.
Power to direct levy of municipal tax in	India Act III of 1880, ss. 21, 22.
Power to prohibit or exempt classes of persons from taxation in ...	India Act III of 1880, s. 24.
Application of taxes levied in	India Act III of 1880, ss. 23, 35.

(2) *Jurisdiction in.*

(*a*) *Of Cantonment Magistrate.*

Civil jurisdiction of—

Establishment of Court of Small Causes in. Effect of, as to jurisdiction of Military Courts.	India Act III of 1880, s. 8. India Act XI of 1865, ss. 48, 49.

(b) *Of Cantonment Joint Magistrate.*

Nature of	India Act III of 1859, s. 1.
Suspension of Military Courts of Request by	India Act III of 1859, s. 2.
Exclusive as to persons amenable to Articles of War	India Act III of 1859, s. 4.
Registered traders only allowed to sue in Court of	India Act III of 1859, s. 6.
Procedure of, and power of, to award compensation to defendant in civil suits.	India Act III of 1859, ss. 7, 8.
Not affected by Mofussil Courts of Small Causes	India Act XI of 1865, s. 12.
Suspension of, where Cantonment Magistrates are Judges of Small Cause Courts.	Mad. Act I of 1866, s. 9. India Act III of 1880, s. 8.
Court-fee on application to, in suits under Rupees 50 in value ...	India Act VII of 1870, s. 6, sch. II, No. 1 (a).

(3) *Police in.*

Administration of, vested in District Superintendent of Police, subject to control of Commanding Officer.	Mad. Act I of 1866, s. 12. India Act III of 1880, s. 9.
Powers of officer in charge of, not affected by Indian Articles of War.	India Act V of 1869, pt. I(f).
Service by, of process issued by Commanding Officer	India Act III of 1880, s. 11. Mad. Act. I of 1866, s. 16.
Power of, to arrest without warrant persons illegally possessing or selling intoxicating liquor.	India Act III of 1880, s. 17. Mad. Act I of 1866, s. 33.

(4) *Arrests in.*

Warrant of arrest or other process issued in execution of decree, how executed in.	India Act XIV of 1882, s. 469.
Of military persons or persons attached to, or serving with the army, how conducted.	Mad. Act I of 1866, s. 15.

(5) *Rules for Regulation of.*

Making and confirmation of, penalty for and jurisdiction over breach of.	India Act III of 1880, ss. 25—30. Mad. Act I of 1866, ss. 17—24.
To provide for occupation and registration of lands and houses, prevention of public nuisances and contagious diseases, and registration of births, deaths, and marriages, &c.	India Act III of 1880, s. 27. Mad. Act I of 1866, s. 19.
Breach of, triable by Commanding Officer only in default of Cantonment Magistrate.	India Act III of 1880, s. 33. India Act V of 1869, pt. III. Mad. Act. I of 1866, s. 37.
As to contagious diseases. Power to extend beyond Cantonment limits.	India Act III of 1880, ss. 31, 32. Mad. Act I of 1866, ss. 26, 27.
Judicial notice to be taken of	Mad. Act I of 1866, s. 28.
Effect of, in respect of prior regulations	India Act III of 1880, ss. 33, 34. Mad. Act I of 1866, ss. 29, 37.
Power to extend Police nuisance sections to	India Act III of 1880, s. 10. Mad. Act I of 1866, s. 13.
Indemnity for acts done previously in	Mad. Act I of 1866, s. 38.

(6) *Spirituous Liquor, Wine, or Intoxicating Drugs.*

Licenses for manufacture or sale of spirituous or fermented liquors in, to be granted with consent of Commanding Officer.	India Act XXII of 1882, s. 53.
Arrest or search in excise cases in, to be previously notified or subsequently reported to Commanding Officer.	India Act XXII of 1882, s. 53.
Application of general excise law to	India Act XXII of 1881, s. 53.
Unlicensed sale of, to European or Eurasian soldiers and their wives, or to camp-followers.	India Act III of 1880, ss. 14—15. Mad. Act I of 1866, ss. 30, 31.
Unauthorized possession of, by camp-followers, pensioners or their wives.	India Act III of 1880, s. 16. Mad. Act I of 1866, s. 32.
Arrest of persons illegally selling or possessing, and seizure and confiscation of, and rewards to informers regarding.	India Act III of 1880. ss. 17—19. Mad. Act I of 1866, ss. 33—35.
Restrictions as to, not to apply to sale by medical practitioners, chemists or druggists.	India Act III of 1880, s. 20. Mad. Act I of 1866, s. 36.
Rules regarding sale, possession and conveyance of spirits in ...	India Act XVIII of 1853.
Extension of rules to limits round	India Act XVIII of 1853, s. 16. India Act XXII of 1881, s. 4.

MILITARY COURTS OF REQUEST.

(1) *European.*

Constitution, jurisdiction and procedure of	44 & 45 Vic., c. 58, ss. 143, 148.
Execution of judgments and decrees of	44 & 45 Vic., c. 58, s. 150.
Jurisdiction of, ousted by Courts of Small Causes	44 & 45 Vic., c. 58, s. 151. India Act III of 1880, s. 8.
Saving of jurisdiction of	India Act XIV of 1882, s. 6.

(2) *Native.*

Constitution, jurisdiction, procedure, &c.	India Act XI of 1841, ss. 2—12.
Extension of jurisdiction to persons other than enlisted soldiers...	India Act XII of 1842, s. 2.
Execution of decree of, beyond jurisdiction	India Act XXXIII of 1852, ss. 1—8.
within jurisdiction	India Act XI of 1841, ss. 13—16.
Unregistered bazaar man may not sue in	India Act XII of 1842, s. 1.
Beyond frontier. Jurisdiction of, conferred	India Act XI of 1841, s. 17.
may be suspended by Governor-General in Council.	India Act XII of 1868, s. 1.
Appeal when allowed to High Court from orders of.	India Act XI of 1841, s. 17.

Jurisdiction of, suspended in cantonments where Joint Magistrates are invested with civil jurisdiction.	India Act III of 1859, s. 2.
on establishment of Cantonment Small Cause Court.	Mad. Act I of 1866, s. 9. India Act III of 1880, s. 8. India Act XI of 1865, s. 48.
not affected by Code of Civil Procedure ...	India Act XIV of 1882, s. 6 (*a*).
Mofussil Courts of Small Causes.	India Act XI of 1865, s. 12.
Exemption of plaint and petition for execution from court-fee ...	India Act VII of 1870, s. 19 (vi).

MILITARY DEBTS.

Preferential charges on estate of deceased soldier	26 & 27 Vic., c. 57, s. 4.

MILITARY MEN.

To what extent liable to jurisdiction of ordinary courts for non-military offences.	44 & 45 Vic., c. 58, s. 41. India Act V of 1869, art. 170.
Redress of wrongs of, as against superior officers	44 & 45 Vic., c. 58, ss. 42, 43, 180 (*d*).

OFFICIAL TRUSTEE.

Appointment, suspension and removal of	India Act XVII of 1864, ss. 4—7.
Administrator-General may hold office of	India Act II of 1874, s. 9.
When and in respect of what property may be appointed trustee ...	India Act XVII of 1864, ss. 8, 10, 32. India Act II of 1882, s. 73.
Appointment of, as trustee of assets carried to separate accounts by the Administrator-General.	India Act II of 1874, s. 32.
Payment to, of sum secured by insurance on life of husband for benefit of wife and children.	India Act III of 1874, s. 6.
Remuneration and duties of, and keeping and auditing of accounts of ...	India Act XVII of 1864, ss. 9, 11, 12, 16, 19, 20—27.
Not affected by law prohibiting trustee from claiming remuneration for services.	India Act II of 1882, s. 50.
Must be sole trustee	India Act XVII of 1864, s. 13.
Recovery of defalcations from	India Act XII of 1850, s. 3. India Act XVII of 1864, ss. 28—31.
Suits by and against	India Act XVII of 1864, s. 18.
Registration of document executed by, in official capacity	India Act III of 1877, s. 88.

OPIUM.

Cultivation, manufacture, transport, import, export, warehousing, and sale of—	
Prohibition and regulation of	India Act I of 1878, ss. 4, 8.
Illicit. Rewards for information concerning	India Act I of 1878, s. 13 (*b*).
penalties for	India Act I of 1878, ss. 9—13.
powers of arrest and search in respect of	India Act I of 1878, ss. 14—22.
Duty on. Imposition of	India Act I of 1878, ss. 5, 6.
recovery of	India Act I of 1878, s. 23.
Customs duty leviable on, imported from one customs port into another.	India Act VIII of 1878, s. 20 (*b*).
Drawback not claimable on re-exportation of	India Act VIII of 1878, s. 50 (*d*).
Confiscation of, when and by whom to be ordered	India Act I of 1878, ss. 11—13.
Officers of excise, police, customs, salt, and revenue to assist in enforcing law relating to.	India Act I of 1878, ss. 14, 15, 17.
Recovery of dues from farmer of	India Act I of 1878, s. 23.
from license of farmer of	India Act I of 1878, s. 24.
penalties due under bond relating to	India Act I of 1878, s. 25.
Jurisdiction in offences relating to	India Act I of 1878, s. 3.
Duty leviable on, carried from one port in British India to another ...	India Act XI of 1882, ss. 2, 7. India Act VIII of 1878, s. 20.

PAPER CURRENCY.

Department of, constitution and functions	India Act XX of 1882, s. 3.
officers of	India Act XX of 1882, ss. 4, 6. 7.
appointment and removal of	India Act XX of 1882, s. 8.
Power of Governor-General to establish circles of issue	India Act XX of 1882, s. 5.
Supply and issue of currency notes in exchange for silver or gold coin, or bullion.	India Act XX of 1882, ss. 9—15.
Notes where legal tender and where payable	India Act XX of 1882, ss. 16—18.
Reserve of coin, bullion, and Government securities	India Act XX of 1882, ss. 19—24.
Prohibition of issue of private bills, or notes payable to bearer on demand.	India Act XX of 1882, s. 25.
penalty for issuing such notes or bills	India Act XX of 1882, s. 26.
Accounts of Department	India Act XX of 1882, s. 27.
Supplementary powers of Governor-General	India Act XX of 1882, s. 28.

PERMANENT SETTLEMENT.

Assessment of sub-divisions of estates under, on alienation of portion.	Mad. Act II of 1864, ss. 45, 46. Mad. Act I of 1876.

POLICE.

(1) *General.*

(*a*) *Arrest and Seizure of Property by.*

On arrest under Salt Laws Amendment Act	Mad. Act I of 1882, s. 9.
How to deal with persons arrested by private parties	India Act X of 1882, s. 59.
Power of, to disarm any person illegally going armed	India Act XI of 1878, s. 13.
as to seizure of property connected with forest offence ...	India Act VII of 1878, s. 52.
offence against salt laws.	Mad. Act I of 1882, ss. 3—6, 21.
regarding offences connected with sale, &c., of spirits in cantonments.	India Act XVIII of 1853, ss. 5, 8.
When authorized to impound cattle	India Act I of 1871, s. 11. India Act VII of 1878, s. 169. Mad. Act VIII of 1867, s. 78.
Not empowered to impound documents not duly stamped ...	India Act I of 1879, s. 33.

(*b*) *Assistance when to be given by and to.*

Bound to assist Customs, Salt, and Land Revenue officers in execution of duty.	India Act XII of 1882, s. 24. India Act VIII of 1878, s. 184. Mad. Act I of 1882, s. 23.
in arrest of military offender on written requisition of Commanding Officer.	India Act V of 1869, part III (*e*).
master of ship, &c., in arrest of deserter	India Act I of 1859, s. 86.
in arresting witnesses in inquiries respecting misconduct or incompetency of masters and of merchant vessels.	India Act IV of 1875, s. 15.
toll collectors in execution of their duty	India Act VIII of 1851, s. 5.
Public bound to assist in making arrest or preventing offences ...	India Act X of 1882, s. 42.
What persons bound to assist in preventing damage at timber depôt or station.	India Act VII of 1878, s. 44.
to forest, &c., by fire ...	India Act VII of 1878, s. 78. Mad. Act V of 1882, s. 23.

(*c*) *Powers of, for prevention of offences.*

Power of officer in charge of station to disperse unlawful assemblies	India Act X of 1882, ss. 127, 128.
inspect weights and measures	India Act X of 1882, s. 153.
to demand production of license to kill, &c., elephants ...	India Act VI of 1879, s. 8.
Interposition to prevent commission of cognizable offence ...	India Act X of 1882, ss. 149—151.
injury to public property, landmark or buoy.	India Act X of 1882, s. 152.
commission of forest offence	India Act VII of 1878, s. 64.
Duty of, to give information in respect of wandering and dangerous lunatics or of neglect and cruel treatment of lunatics.	India Act XXXVI of 1858, ss. 4—6.
to aid in preventing resistance to seizure, and rescue of cattle seized for the purpose of impounding.	India Act I of 1871, s. 10.
To what extent may be invested with magisterial powers	India Act X of 1882, s. 14.

(*d*) *Investigation of cognizable offence.*

Complaint to be in writing or reduced to writing and signed and registered.	India Act X of 1882, s. 154.
exempted from court-fee	India Act VII of 1870, s. 19, xvi.
What officer empowered to make, and within what limits	India Act X of 1882, s. 156.
When and by what officer to be made	India Act X of 1882, s. 157.
Local, when dispensed with	India Act X of 1882, s. 157, prov. (a).
Procedure if there appear no sufficient ground for	India Act X of 1882, s. 157, prov. (b).
Officer making, power of, to summon and examine witnesses ...	India Act X of 1882, ss. 160—162.
witness to produce document.	India Act X of 1882, s. 94.
to issue search warrant for document,	India Act X of 1882, s. 165.
&c., power of, to search or cause search of house or place—	
within jurisdiction	India Act X of 1882, s. 165.
beyond jurisdiction	India Act X of 1882, s. 166.
not to detain accused more than twenty-four hours, except on special order.	India Act X of 1882, s. 167.
when a subordinate to report proceedings to officer in charge of police station.	India Act X of 1882, s. 168.
to forward report with accused to Magistrate ...	India Act X of 1882, ss. 170, 173.
power of, to take bail	India Act X of 1882, ss. 169, 170.
to compel attendance of prosecutors and witnesses before Magistrate.	India Act X of 1882, ss. 170, 171.
procedure of, in case of deficient evidence ...	India Act X of 1882, s. 169.
Diary to be kept of proceedings on	India Act X of 1882, s. 172.
Preliminary report on receipt of information, contents of ...	India Act X of 1882, s. 157.
to be submitted through superior officer who may give directions.	India Act X of 1882, s. 158.
Power to direct magisterial inquiry on receipt of.	India Act X of 1882, s. 159.
Final report, form and contents of	India Act X of 1882, s. 173.
through what channel to be sent	India Act X of 1882, s. 173.
weapons, &c., found on accused to be forwarded with	India Act X of 1882, s. 170.
what Magistrates may take cognizance of offences on	India Act X of 1882, s. 191.
receiving of, by Magistrate not empowered, does not invalidate proceedings.	India Act X of 1882, s. 529 (*e*).

(*e*) *Investigation of non-cognizable offence.*

Not to be made without special order	India Act X of 1882, s. 155.
By order of Magistrate of first or second class how conducted ...	India Act X of 1882, ss. 155, 202.
Order for, by unauthorized Magistrate not to invalidate proceedings.	India Act X of 1882, s. 529 (*o*).
Procedure in case of complaint direct to police	India Act X of 1882, s. 155.

(*f*) *Service of process through.*

Warrant of arrest to be directed to, ordinarily in mofussil ...	India Act X of 1882, s. 77.
always in Presidency town ...	India Act X of 1882, s. 77. India Act V of 1871, s. 3.
Summons to be ordinarily served by	India Act X of 1882, s. 68.
Search warrant to be ordinarily directed to	India Act X of 1882, ss. 77, 101.

(*g*) *Officer in charge of Police Station.*

Subordinate to report proceedings to	India Act X of 1882, s. 62.
Powers of, to be exercised by whom in case of absence, sickness, &c.	India Act X of 1882, s. 4 (*o*).
superior police officers throughout their local jurisdictions.	India Act X of 1882, s. 550.
to depute by written order subordinate to make arrest or search.	India Act X of 1882, ss. 56, 379.
to disperse unlawful assemblies	India Act X of 1882, ss. 127, 128.
Bound, on written requisition of Salt Revenue officer, to attend or depute subordinate to attend search of place of illicit manufacture.	India Act XII of 1882, ss. 18, 19.
Power of, to enter shop and inspect weights and measures and seize any that are false.	India Act X of 1882, s. 153.
Duties and powers of, with reference to sale of impounded cattle when unclaimed.	India Act I of 1871, ss. 14—17.
Procedure of, in effecting execution of warrant issued to other police officer.	India Act X of 1882, s. 84.

(*h*) *Superior Officers.*

Investiture of, with magisterial powers to what extent and for what purposes.	India Act XXIV of 1859, s. 7. India Act X of 1882, s. 14.
Preliminary and final reports of cognizable offence to be submitted through.	India Act X of 1882, ss. 158, 173.
May give directions regarding conduct of police investigation ...	India Act X of 1882, ss. 158, 173.
May be appointed public prosecutor	India Act X of 1882, s. 492.
allowed to conduct prosecution in Magistrate's Court ...	India Act X of 1882, s. 495.
To have powers of officer in charge of station	India Act X of 1882, s. 550.

(*i*) *Special Rules regarding Presidency Towns.*

Code of Criminal Procedure how far inapplicable to	India Act X of 1882, s. 1 (*a*) & (*e*).
Public when bound to assist	India Act X of 1882, s. 42.
Power of, for arrest of offenders	India Act X of 1882, s. 54.
Power of, in regard to dispersion of unlawful assemblies	India Act X of 1882, s. 127.
Groundlessly causing arrest by, compensation for	India Act X of 1882, s. 552.

(*j*) *Miscellaneous.*

Officers of, objectionable as jurors or assessors	India Act X of 1882, s. 278 (*e*).
Prohibition against purchase by, of impounded cattle	India Act I of 1871, s. 19.
Penalty for vexatious seizure or arrest by	Mad. Act I of 1882, s. 24.
Saving of provisions of Presidency Police Acts as to petty estates	India Act II of 1874, s. 66.
Power of, to enter and inspect disorderly house, drinking-shop, gaming-house.	India Act V of 1861, s. 23.
Entertainment of extra, &c., with a view to prevention, in certain districts or in respect of particular class, family, or persons, of female infanticide.	India Act VIII of 1870, ss. 1, 2.
Disposal of rewards payable to informers, when information is given by.	India Act V of 1861, s. 41.
Report of certain matters by landholder to	India Act X of 1882, s. 45. Mad. Reg. I of 1830, s. 3.
To assist in suppressing illicit cultivation of opium	India Act I of 1878, ss. 14, 15, 17.
To keep order in neighbourhood or place of worship during service.	India Act V of 1861, s. 31. India Act XXIV of 1859, s. 49.
Power of, to direct conduct of processions in public road, &c. ...	India Act V of 1861, ss. 30—33. India Act XXIV of 1859, s. 49.
To prevent public nuisances	India Act V of 1861, s. 23. India Act XXIV of 1859, s. 21.
Powers and duties of, in respect of offences against salt laws ...	Mad. Act I of 1882, ss. 21, 23.
Exemption of, from payment of tolls on roads and bridges ...	Mad. Act II of 1868, s. 14. Mad. Act III of 1871, s. 80. Mad. Act V of 1878, s. 178. India Act VIII of 1851, s. 4. Mad. Act IV of 1871, s. 65.
Bound to assist in collection of tolls on roads and bridges ...	India Act VIII of 1851, s. 5.
Duty of, to take charge of unclaimed property	India Act V of 1861, s. 25.

(2) *Special for Madras.*

(*a*) *Appointment, Constitution and Expenses of.*

Establishment, constitution, superintendence, control, appointment, and resignation of.	India Act XXIV of 1859, ss. 4—11, 19. Mad. Act VIII of 1867, ss. 2, 3.

Courts to have no power to appoint, supersede, or control ...	India Act XXIV of 1859, s. 4.
Expenses of, to be borne by Government	Mad. Reg. XXV of 1802, s. 5.
resumption of land appropriated to	Mad. Reg. XXV of 1802, s. 5.
Quartering additional in disturbed or dangerous districts ...	Mad. Act III of 1882, ss. 1, 2.
Assessment for support of, in Tanjore— rates of and method of levying ...	Mad. Reg. I of 1816, ss. 1—6.
to be collected by Collector	Mad. Reg. II of 1803, s. 31.
In municipal towns, contribution from municipal funds for support of.	Mad. Act VII of 1878, ss. 4—6.
Additional, rules for appointment and payment of	India Act XXIV of 1859, ss. 13—15. India Act I of 1876, s. 16.
Special, appointment and powers of, and penalty for refusal to serve as.	India Act XXIV of 1859, ss. 16—18. Mad. Act VIII of 1867, s. 8.
Village police, cuttoobuddies, and cauvalgars included in ...	India Act XXIV of 1859, s. 1.

(b) *Privileges and Exemptions.*

Protection of, for act done under warrant	Mad. Act VIII of 1865, s. 78. India Act XXIV of 1859, s. 54.
Exemption of, from tolls	Mad. Act II of 1868, s. 14.
Suits against, and prosecution of, limitation of time for, notice, tender of amends in.	India Act XXIV of 1859, s. 53. Mad. Act VIII of 1867, s. 75.

(c) *Duties and Powers.*

Authority, duties and powers of	India Act XXIV of 1859, ss. 6, 21, 49.
Officers of, to exercise no revenue or judicial authority	India Act XXIV of 1859, s. 6.
To execute warrant for ejectment of tenant for arrears of rent ...	India Act VIII of 1865, s. 43.
Power of, superior officers to order crowd of twelve or more persons to disperse.	India Act XXIV of 1859, s. 49.
To assist Abkarry officers on demand	India Act XIX of 1852, s. 21.
Power of officer in charge of police station to inspect register of purchases of coffee.	Mad. Act VIII of 1878, s. 6.
To assist distrainer for arrears of rent	Mad. Act VIII of 1865, ss. 19, 29.
Duty of, to attend distraint for land revenue on demand of distrainer.	Mad. Act VI of 1867, ss. 12, 13. Mad. Act II of 1864, s. 20.
toll-collectors in recovering tolls	Mad. Act II of 1868, s. 15.
Powers of, as to search, seizure, and detention of illicit salt ...	Mad. Act I of 1882, ss. 4—21.
Entitled to inspect curnum's registers of strangers passing through villages.	Mad. Reg. XXIX of 1802, s. 11 (12).

(d) *Offences by and against.*

Special offences against authority of	India Act XXIV of 1859, ss. 47, 49.
Unlawful assumption of powers of and personation of	India Act XXIV of 1859, s. 20.
Prohibition against engaging in other employment or office without written permission of Inspector-General.	India Act XXIV of 1859, s. 19.
Offences by officers of, prosecution for, bar to civil suit for same act.	India Act XXIV of 1859, s. 53.
punishable under Acts	India Act XXIV of 1859, s. 51.
penalties for and their levy, and jurisdiction as to.	India Act XXIV of 1859, ss. 10, 44—46, 50. Mad. Act V of 1865.
Charge for, leviable on cargo boats in Madras ports	Mad. Act I of 1881, ss. 2, 6—9.
Powers of, in Madras ports	Mad. Act I of 1881, ss. 12—14.
as to animals attacked by cattle-disease	Mad. Act II of 1866, ss. 15, 16.
for prevention of suttee	Mad. Reg. I of 1830, s. 3.
Recovery of fees of village servants employed to perform duties of.	Mad. Act II of 1864, s. 52.

(3) *Madras Town Police Force.*

(a) *Constitution and General Powers.*

Incorporation of, with general Police force	Mad. Act VIII of 1867, s. 2.
Port Police, employment and duties of, and recovery of charges for.	India Act XXVIII of 1858.
Jurisdiction of, within limits of port of Madras	India Act XXVIII of 1858, s. 10.
Application to, of provisions of Code of Criminal Procedure save those regarding inquests.	India Act X of 1882, s. 1 (e).
of those regarding inquest in certain parts ...	India Act X of 1881, s. 4.
Powers of, as to search and arrest	Mad. Act VIII of 1867, ss. 56—59.
to impound stray animals and kill stray dogs	Mad. Act VIII of 1867, ss. 78, 79.
To assist in seizure and detention of unregistered cart liable to municipal tax.	Mad. Act VI of 1878, s. 172.
To execute process, &c., of Presidency Magistrates	Mad. Act VIII of 1867, s. 11.
Police Superannuation Fund amalgamated with general Police Superannuation Fund.	Mad. Act VIII of 1867, s. 3.

(b) *Commissioner of Police.*

Appointment, removal and general powers of	Mad. Act VIII of 1867, s. 4.
Power to appoint, as Presidency Magistrate	Mad. Act VIII of 1867, s. 6.
Preventive powers of, as Justice of the Peace	Mad. Act VIII of 1867, s. 7.
Deputy and Assistants to, appointment, removal and powers of ...	Mad. Act VIII of 1867, ss. 5, 7.
Power of, to issue search warrants	Mad. Act VIII of 1867, ss. 33, 48, 58.
to license sale, possession and conveyance of gunpowder.	Mad. Act VIII of 1867, ss. 46, 47.
to take charge of and deliver movable property of intestate under Rupees 200 to claimant and take security for due administration thereof.	Mad. Act VIII of 1867, ss. 76, 77.
to appoint pounds and pound-keepers	Mad. Act VIII of 1867, s. 78.

Power of, for registration and licensing of hackney carriages and their drivers.	Mad. Act III of 1879.
in reference to property left in hackney carriages ...	Mad. Act III of 1879, s. 47.
in reference to supply of and levy of charges for Port Police.	Mad. Act I of 1881.
as to inquests in ports excluded from Coroner's jurisdiction.	India Act IX of 1881, s. 4.
Empowered to make bye-laws, for carrying out objects of Police Act.	Mad. Act III of 1862.

(c) *Nuisances and Miscellaneous Offences.*

Bye-laws, making confirmation, publication and penalty for breach of	Mad. Act III of 1862.
Various offences and powers of Police in respect of—	
Stolen property	Mad. Act VIII of 1867, ss. 17, 18.
Wilful trespass	Mad. Act VIII of 1867, s. 20.
Reputed thieves	Mad. Act VIII of 1867, s. 23.
Carrying arms	Mad. Act VIII of 1867, s. 24.
Taking spirits or drugs into barracks or hospitals or on board vessels of war.	Mad. Act VIII of 1867, ss. 25, 26.
Taverns, boarding and lodging houses and refreshment rooms.	Mad. Act VIII of 1867, ss. 27—29.
Disorderly houses	Mad. Act VIII of 1867, s. 30.
Gaming houses, cheating at games and gaming, and cock-fighting in streets.	Mad. Act VIII of 1867, ss. 31—41.
Weights and measures	Mad. Act VIII of 1867, s. 44.
Pawnbrokers and money-changers	Mad. Act VIII of 1867, ss. 42, 43.
Gunpowder	Mad. Act VIII of 1867, ss. 45—49.
Public nuisances, drunkenness or disorderly behaviour in thoroughfares, &c.	Mad. Act VIII of 1867, ss. 50, 51.
Misbehaviour at Police court or station ...	Mad. Act VIII of 1867, s. 51.
Beggars	Mad. Act VIII of 1867, s. 54.
Cruelty to animals	Mad. Act VIII of 1866, s. 55. Mad. Act IV of 1879.
Impounding stray animals	Mad. Act VIII of 1867, s. 78.
Pawnbrokers and money-changers in, not to take pledges from children, and to give information as to stolen property.	Mad. Act VIII of 1867, ss. 42, 43.
Powers of private persons as to apprehension of offenders	Mad. Act VIII of 1867, s. 57.
Limitation of time for, notice, tender of amends, and costs in suit or prosecution for thing done by Police, &c., in pursuance of duty.	Mad. Act VIII of 1867, s. 75.
Powers of, as to diseased cattle	Mad. Act II of 1866, ss. 15, 16.
to remove obstructions in approaches to Madras pier ...	Mad. Act V of 1863, s. 13.

(4) *District Superintendent of Police.*

Appointment and salary of	India Act XXIV of 1859, ss. 1, 5. India Act V of 1861, s. 4.
Under general control and direction of Magistrate of District ...	India Act V of 1861, s. 4.
Investiture of, with power to declare European vagrants, &c. ...	India Act IX of 1874, s. 10.
Empowered to order detention, but not delivery of, letter in Post office.	India Act X of 1882, s. 95.
to issue warrant for search of gaming-house ...	India Act III of 1867, s. 5.
to regulate public assemblies and processions, and the use of music in the streets.	India Act V of 1861, s. 30. India Act XXIV of 1859, s. 49.
Appointment, dismissal and punishment of inferior officers by ...	India Act XXIV of 1859, s. 10. India Act V of 1861, s. 7.
Power of, to appoint additional police at request and cost of individual.	India Act XXIV of 1859, s. 13. India Act V of 1861, s. 13.
for boats in ports, and levy charge therefor.	Mad. Act I of 1881.
Duty of, in respect of estimates and accounts of cost of Municipal police.	Mad. Act VII of 1878, s. 6.
Authority of, over village police	India Act V of 1861, s. 47.
Permission of, or notice to, necessary before resignation of Police officer.	India Act XXIV of 1859, s. 19. India Act V of 1861, s. 9.
Notice of suit against Police officer to be given to	India Act V of 1861, s. 42. India Act XXIV of 1859, s. 53.
Custody of register of members of criminal tribes by	India Act XXVII of 1871, ss. 10, 16.
Administration of Police in Military Cantonments vested in, subject to control of Commanding Officer.	Mad. Act I of 1866, s. 12. India Act III of 1880, s. 9.

(5) *Disturbed District.*

Quartering of additional police in	India Act V of 1861, s. 15. Mad. Act III of 1882, s. 1.

(6) *European Magistrate.*

Offences by police above rank of constable to be tried by ...	India Act XXIV of 1859, s. 50.

(7) *General Police Fund.*

Constitution of, and moneys to be paid to	India Act XXIV of 1859, s. 15.

(8) *Inspector-General of Police.*

Appointment and powers of	India Act XXIV of 1859, ss. 5, 7, 9, 10, 13, 14. Mad. Act VIII of 1867, s. 4. India Act V of 1861, ss. 4, 5, 7, 12—14.
To fix number of municipal police	India Act XV of 1873, s. 34.

PORTS.

(1) *Appointment and limits of.*

Inclusion in, of rivers, channels, shores, piers, jetties, landing-places, wharfs, quays, docks, &c.	India Act XII of 1875, ss. 2, 5.
Limits of, how defined	India Act XII of 1875, s. 5 (*a*).
jurisdiction of Presidency Magistrates within	India Act X of 1882, s. 19.
Appointment of, for customs purposes	India Act VIII of 1878, ss. 11—16.
Limits of, for purposes of Port Commissioners Act	India Act XV of 1879, s. 3.

(2) *Rules for Regulation and Management of.*

Applicable to certain specified ports	India Act XII of 1875, s. 2 (*a*), sch. I, &c.
Power to extend wholly or partially to other ports	India Act XII of 1875, ss. 5, 6, 75.
of Local Government to make	India Act XII of 1875, s. 7.
	Mad. Act II of 1872.
Rules for the safety of shipping in and preservation of general ...	India Act XII of 1875, ss. 20—36.
special ...	India Act XII of 1875, ss. 38—41.
Power to limit, for importation of petroleum	India Act VIII of 1881, s. 7.
extend, with modifications, rules as to boats and catamarans in Madras roads to other.	India Act IX of 1846, s. 1.

(3) *Offences relating to.*

Jurisdiction over and procedure as to	India Act XII of 1875, ss. 66—72, 75.
	India Act IV of 1877, s. 8.
Penalty for British ship hoisting unlawful colors in ports ...	India Act XII of 1875, s. 73.
Ships entering or leaving port, to hoist signals	India Act XII of 1875, ss. 62—65.

(4) *Miscellaneous.*

Rules licensing and regulating cargo boats in	India Act XII of 1875, s. 7 (*k*).
Stamp duty on delivery order relating to goods lying in	India Act I of 1879, ss. 4, 5, sch. I, No. 31.
Fire in, provisions as to extinguishing	India Act XII of 1875, ss. 17, 36, 39.
Penalty for discharging firearms in, otherwise than as signal of distress.	India Act XII of 1875, s. 35.
Registration, &c., of harbour, craft in	India Act XIX of 1838.
Harbour-master when to be Conservator of	India Act XII of 1875, s. 8 (*b*).

PORT FUND.

Constitution and accounts of, and charges on	India Act XII of 1875, s. 47.
Unclaimed sale-proceeds of drift seized for damage to Madras pier, to be credited to.	Mad. Act VII of 1871, s. 3.

PORT OFFICERS.

Conservator of port. Appointment and powers of	India Act XII of 1875, ss. 8—17, 73.
Powers of, to be exercised by other Port officers.	India Act XII of 1875, s. 18.
in reference to levying of damage	Mad. Act V of 1863, ss. 9, 10.
done by vessels or drift fouling Madras pier.	Mad. Act VII of 1871, ss. 2—6.
Licensing and regulation of boats by, in Madras roads	India Act VI of 1842.
Indemnity to Government for loss or damage caused by default of ...	India Act XI of 1875, s. 19.
Port Commissioners and Trustees relieved from liability for acts of ...	India Act XV of 1879, s. 53.

POST.

(1) *Monopoly of Post Office.*

Exclusive privilege of carrying letters for hire vested in Government of India.	India Act XIV of 1866, s. 5.
Legislatures at Madras not to affect, without Governor-General's sanction.	24 and 25 Vic., c. 67, s. 43.

(2) *Management of Post Office and Powers and Liabilities in respect of Posted Articles.*

Government not responsible for loss of article sent by post ...	India Act XIV of 1866, s. 65.
Power of postal authorities to seize seditious or illegally imported newspapers and books in the.	India Act III of 1882, s. 3.
Letter, &c., supposed to contain contraband article or article in contravention of Post office rules, procedure with regard to.	India Act XIV of 1866, s. 60.
Property of articles posted vests in Postmaster-General, for the purpose of bringing charge of offences.	India Act XIV of 1866, s. 61.
Production in Criminal Court of letters in	India Act X of 1882, ss. 95, 96.
Rules for management of	India Act XIV of 1866, s. 63.
Special rules regarding landing and shipping of mails	India Act VIII of 1878, s. 75.
in Madras ports.	Mad. Act I of 1881, s. 10.
Registration of, and receipts for, articles sent by post	India Act XIV of 1866, ss. 25, 26.
Re-delivery of letters and articles once put into the Post office ...	India Act XIV of 1866, s. 27.
Disposal of unclaimed articles	India Act XIV of 1866, s. 29.

(3) *Officers of Post Office.*

Appointment and powers of	India Act XIV of 1866, s. 7.
Exempted from service as jurors or assessors	India Act X of 1882, s. 320 (*i*).
Responsibility of, for loss of article sent by post, only in case of fraud, negligence, or malice.	India Act XIV of 1866, s. 65.

(4) *Offences relating to Post Office.*

By private persons	India Act XIV of 1866, ss. 42—46.
By departmental officials	India Act XIV of 1866, ss. 47—51.
By departmental officials in Native State triable by British Courts.	India Act XIV of 1866, s. 59.
Abetment or concealment of	India Act XIV of 1866, s. 52.
Triable by Presidency Magistrate wherever committed if witnesses are in Presidency town.	India Act X of 1882, s. 184.

(5) *Postage Rates.*

Inland, on letters	India Act XIV of 1866, s. 8.
newspapers and proof-sheets	India Act XIV of 1866, ss. 9—12.
books and packets	India Act XIV of 1866, ss. 13, 17.
parcels	India Act XIV of 1866, ss. 14—18.
articles sent on Her Majesty's service	India Act XIV of 1866, s. 62.
power to direct pre-payment of	India Act XIV of 1866, s. 19.
power to alter	India Act XIV of 1866, s. 20.
Foreign or sea	India Act XIV of 1866, ss. 21, 22.
For redirection	India Act XIV of 1866, s. 24.
Recovery of, when unpaid from receiver or sender of letter, &c....	India Act XIV of 1866, ss. 28, 30.
Payable by stamps	India Act XIV of 1866, s. 35.

(6) *Transmission of Process, &c., by Post.*

Notice of dishonor, &c., may be sent by post	India Act XXVI of 1881, s. 94.
Summons, &c., in civil cases when to be transmitted or served through.	India Act XIV of 1882, ss. 85, 88—90, 92. India Act VI of 1882, ss. 89, 90.
postage charge on, how and when collected.	India Act XIV of 1882, s. 95.
Processes for execution beyond local jurisdiction, may be sent by, to another Magistrate.	India Act X of 1882, ss. 83, 101.
Summons in rent suit for service in foreign territory	India Act XII of 1881, s. 117A.
Notices to, or by Presidency banks, may be sent by letter ...	India Act XI of 1876, ss. 59, 60.

PRISONERS.

(1) *General.*

(*a*) *Confinement, removal, release, &c.*

Warrant for, and place of confinement of, by order of Court in Presidency towns.	India Act V of 1871, ss. 4—15. India Act X of 1882, ss. 383—385.
in Mofussil ...	India Act V of 1871, ss. 16—20. India Act X of 1882, ss. 381, 383—385.
Removal of, from one prison to another	India Act V of 1871, ss. 30, 32. India Act XIV of 1878, s. 6.
Lunatic, removal of, from prison to asylum, and procedure on recovery of.	India Act V of 1871, s. 31. India Act XIV of 1878, s. 6.
Management of transported convicts	India Act V of 1871, s. 33. India Act IX of 1882, s. 2.
in case of military convict ...	32 & 33 Vic., c. 95. 44 & 45 Vic., c. 58, s. 130.

(*b*) *Exemptions in favour of.*

Petition by, exempted from court-fee	India Act VII of 1870, s. 19, xvii.
When entitled to obtain copy of proceedings gratis	India Act X of 1882, s. 548.
May present petition of appeal to officer of jail	India Act X of 1882, s. 420.
Exempted from personal appearance before registering officer ...	India Act III of 1877, ss. 33, 38.

(*c*) *Attendance of, in Court how procured.*

Method of obtaining attendance of—	
as witness in civil or criminal court when confined in same province—	
in Mofussil jail less than 100 miles off	India Act XV of 1869, ss. 3—6.
in Mofussil jail more than 100 miles off, or Presidency Jail.	India Act XV of 1869, s. 7. India Act X of 1882, s. 542.
in criminal court when confined in another province.	India Act XV of 1869, s. 8.
as accused	India Act XV of 1869, ss. 3, 6.
Commission for examination of, as witness in civil court, when confined—	
in the same province	India Act XV of 1869, ss. 12, 14.
in another province	India Act XV of 1869, ss. 13, 14.
Service of process issued by criminal court on	India Act XV of 1869, ss. 15, 16.
Deposit of costs before issue by civil court of order for attendance of, as witness.	India Act XV of 1869, s. 17.
Power of Coroner to order attendance of, as witness	India Act IV of 1871, s. 17.
Power of Presidency Magistrate to order attendance of, as accused or witness.	India Act X of 1882, s. 542.
Order for attendance of, as witness, &c., in court, not to be obeyed when prisoner is sick or under trial, subject to proviso.	India Act XV of 1869, s. 11.
Summons how served on defendant being	India Act XIV of 1882, ss. 87, 88.
Rules regarding strength, cost, and charges of escort for, summoned as witness in court.	India Act XV of 1869, s. 18.

(*d*) *Powers of Presidency High Courts in respect of.*

To order production of, to be dealt with according to law ...	India Act X of 1882, s. 491 (*a*).
examined as a witness	India Act X of 1882, s. 491 (*c*).
tried or examined by court-martial or commissioner.	India Act X of 1882, s. 491 (*d*).
for trial by any court	India Act X of 1882, s. 491 (*e*).
on Sheriff's writ of 'cepi corpus.'	India Act X of 1882, s. 491 (*f*).
release of, improperly detained in custody	India Act X of 1882, s. 491 (*b*).

(2) *Special for Madras.*

Rules for supervision, employment, custody, dieting, and treatment of.	Mad. Act V of 1869, s. 3.
Temporary shelter for, in case of overcrowding or disease ...	Mad. Act V of 1869, s. 5.
Property of, how dealt with during imprisonment	Mad. Act V of 1869, s. 6.
Classification of	Mad. Act V of 1869, s. 7.
Civil, confinement of	Mad. Act V of 1869, ss. 7, 8.
Summary punishment of, by Superintendent for certain offences.	Mad. Act V of 1869, ss. 9—11, 18, 19.
Attempt to convey spirits, drugs, tobacco, tools, &c., to, whether employed in or out of jail—	
penalties for	Mad. Act V of 1869, ss. 14, 15, 17.
rewards for information of	Mad. Act V of 1869, s. 16.

PUBLIC PROSECUTOR.

Defined	India Act X of 1882, s. 4 (*m*).
Appointment of, either generally or for particular case	India Act X of 1882, s. 492.
Police officer not below rank of Assistant District Superintendent may be appointed.	India Act X of 1882, s. 492.
Power of, to appear and plead without written authority	India Act X of 1882, s. 493.
Counsel privately instructed to be under direction of	India Act X of 1882, s. 493.
Withdrawal from prosecution by, and effect thereof	India Act X of 1882, s. 494.
Notice to be given to, on application of accused for transfer of case ...	India Act X of 1882, s. 526.
All cases in Court of Session to be conducted by	India Act X of 1882, s. 270.
May be appointed to present appeal from acquittal	India Act X of 1882, s. 417.
Entitled to appear and be heard in Appellate Court	India Act X of 1882, s. 423.

PUISNE JUDGES.

Of Supreme Court at Madras :—	
Passage-money of	4 Geo. IV, c. 71, s. 12.
Salaries of	6 Geo. IV, c. 85, ss. 1 & 2.
Pensions of	6 Geo. IV, c. 85, ss. 7—11.
Acting as Chief Justices, salaries of	6 Geo. IV, c. 85, s. 4.
Of High Court, tenure of office, precedence, salaries, allowances, furloughs, pensions, outfit and passage-money of.	24 & 25 Vic., c. 104, ss. 3—6.
Provision for vacancy of office of	24 & 25 Vic., c. 104, s. 7.
To be Justices of the Peace	India Act X of 1882, s. 25.
Empowered to hold stock or shares of Presidency Banks.	India Act XI of 1876, s. 66.
Exempt from process of arrest or imprisonment issued by Presidency Small Cause Court.	India Act XV of 1882, s. 93.

PUNCHAYET.

May be a Court of Justice within the meaning of Penal Code	India Act XLV of 1860, s. 20.
Member of, may be a Judge within the meaning of Penal Code	India Act XLV of 1860, s. 19.
assisting Court of Justice, is a public servant	India Act XLV of 1860, s. 21.

PUTTAH.

Landholders and farmers of revenue how far bound to give	Mad. Act VIII of 1865, ss. 3—10, 13, 36.
To be signed and registered by curnums	Mad. Act VIII of 1865, s. 6.
Granted at lower rates than ordinary, how far binding—	
on Government, on attachment for arrears of revenue.	Mad. Act II of 1864, s. 32.
on successor of landholder	Mad. Act VIII of 1865, s. 11.
Judgment for delivery of, how enforced	Mad. Act VIII of 1865, s. 71.

RAILWAY.

(1) *General.*

(*a*) *Railway Administration.*

Defined	India Act IV of 1879, s. 3.
Duties and powers of, as to opening of railway	India Act IV of 1879, ss. 5, 21.
furnishing reports and returns of accidents.	India Act IV of 1879, ss. 6, 7, 22, 23.
making bye-laws	India Act IV of 1879, ss. 8, 23.
publishing copy and translation of Act.	India Act IV of 1879, ss. 9, 23.
detaining and selling goods for payment of fare.	India Act IV of 1879, s. 14.
establishment of gates, fences, bars, &c.	India Act IV of 1879, s. 52.

(*b*) *Railway Servants.*

Defined	India Act IV of 1879, s. 3.
Station-master, &c., duty of, to give notice of accident to nearest Magistrate and police-station.	India Act IV of 1879, ss. 6, 24.

Deemed public servant within certain sections of Indian Penal Code.	India Act IV of 1879, s. 27.
Offences by	India Act IV of 1879, ss. 24—28.
Punishment for obstructing	India Act IV of 1879, s. 38.
Power of, to refuse or stop carriage of dangerous goods	India Act IV of 1879, s. 16.
as to impounding cattle trespassing on railway	India Act IV of 1879, s. 42.
arrest of offenders	India Act IV of 1879, ss. 48, 49.
Bound to give information regarding illicit arms, &c., suspected to be in transit.	India Act XI of 1878, s. 28.
Summons to, may be served through head of office	India Act X of 1882, s. 72.
May be excused from attendance as juror or assessor	India Act X of 1882, s. 329.
Salary of, when exempt from attachment	India Act XIV of 1882, s. 266 (h), expl.
Mode of attachment of	India Act XIV of 1882, s. 268.

(c) *Carriage of property.*

Limitation of liability as to, by special contract in writing	India Act IV of 1879, s. 10.
in case of goods of certain description unless value and description declared.	India Act IV of 1879, s. 11.
in case of unbooked luggage	India Act IV of 1879, s. 12.
Proof of manner of loss not required in suit for damages arising out of.	India Act IV of 1879, s. 13.
Lien for money due for	India Act IV of 1879, s. 14.
Written account of property to be given by sender on demand	India Act IV of 1879, ss. 15, 29.
Rules relating to carriage of dangerous goods	India Act IV of 1879, ss. 16, 30.

(d) *Carriage of passengers.*

Tickets, contents and furnishing of	India Act IV of 1879, s. 17.
to be shown and given up on demand	India Act IV of 1879, ss. 17, 31.
at intermediate stations furnished conditionally on there being room.	India Act IV of 1879, s. 18.
Preferential right of private ticket-holders among themselves	India Act IV of 1879, s. 18.
troops, &c.	India Act IV of 1849, s. 18.
Fares to be prepaid	India Act IV of 1879, ss. 19, 31, 32.
Power to remove passenger suffering from infectious disease	India Act IV of 1879, s. 20.
Offences by passengers	India Act IV of 1879, ss. 29—40.

(e) *Offences, Accidents, &c.*

Accidents, reports, notice and returns of, to be furnished when and by whom.	India Act IV of 1879, ss. 6, 7.
Offences relating to, by railway administration	India Act IV of 1879, ss. 21—23, 52.
railway servants	India Act IV of 1879, ss. 8, 24—28.
private persons	India Act IV of 1879, ss. 29—47.
juvenile offenders	India Act IV of 1879, s. 44.
arrest without warrant for	India Act IV of 1879, ss. 48, 49.
jurisdiction over, and place of trial for	India Act IV of 1879, s. 50.
not to bar operation of other laws	India Act IV of 1879, s. 51.
triable by Presidency Magistrate, wherever committed, if witnesses are in Presidency Town.	India Act X of 1882, s. 184.
Cattle-trespass on railway	India Act IV of 1879, ss. 42, 52.
Elephants in vicinity of, power to kill, &c., without license	India Act VI of 1879, s. 3 (b).
Appointment of additional police in the neighbourhood of	India Act V of 1861, s. 14. India Act XXIV of 1859, s. 41.

(f) *Miscellaneous.*

Power of Government to establish telegraph on land of	India Act I of 1876, ss. 6, 12.
Power to run locomotives	India Act IV of 1879, s. 4.
Power of Government to make rules	India Act IV of 1879, s. 52.
declare what officer shall exercise powers of Local Government.	India Act IV of 1879, s. 53.
extend Act to tramways worked by steam.	India Act IV of 1879, s. 54.
Mortgagee of, not entitled to sue for foreclosure or sale	India Act IV of 1882, s. 67 (c).
Power to include Railway Station within municipality	India Act XV of 1873, s. 5. India Act VII of 1874, s. 4.
Provisions regarding gaming-houses when applicable to Railway Station.	India Act III of 1867, s. 2.
Inclusion of, in customs zone	India Act VIII of 1875, s. 6.
Incorporated by Act of Parliament or Indian Act, and unregistered cannot be wound up under Indian Companies Act.	India Act X of 1866, s. 213.
Power for guaranteed company to enter into working agreements.	42 & 43 Vic., c. 41, s. 1.
to make agreements with Secretary of State as to telegraphs.	42 & 43 Vic., c. 41, s. 2.
additional powers of, as to bridges, ferries, roads, &c.	42 & 43 Vic., c. 41, s. 3.

(2) *Special for Madras.*

Act for incorporating	16 & 17 Vic., C. XLVI (local and personal).
amended	17 & 18 Vic., C. XXIX (local and personal).

(3) *Guaranteed Railway.*

Powers of, to raise money by issue of debenture stock	31 & 32 Vic., c. 26.
Power to enter into working agreements and to make agreements with Secretary of State as to telegraphs.	42 & 43 Vic., c. 41, ss. 1, 2.
Powers as to bridges, ferries, roads, &c., exerciseable with sanction of Secretary of State for India.	42 & 43 Vic., c. 41, s. 3.
Registration and transfer of shares, stock, &c., of	36 & 37 Vic., c. 43.
Trust-moneys may be invested in debentures, stock or shares of.	India Act II of 1882, s. 20 (c).

REGISTER OF REVENUE-PAYING LANDS.

To be kept up by Collector in form prescribed by Board of Revenue ...	Mad. Reg. XXVI of 1802, s. 2.
Transfers of land to be registered in	Mad. Reg. XXV of 1882, s. 8. Mad. Reg. XXVI of 1882, ss. 2, 3. Mad. Act I of 1876.
of portion of permanently-settled estates, registration of—	
application for and procedure for assessment of land revenue thereon.	Mad. Act I of 1876, ss. 1-3.
effect of, on liability of portions of estate	Mad. Act I of 1876, s. 4.
suits to declare or contest right to	Mad. Act. I of 1876, ss. 5, 6.

REVENUE ACCOUNTS.

Land revenue by Collector of District, Madras	Mad. Reg. II of 1803, ss. 13-31, 38-44.
How obtained by Collector for purposes of apportionment of assessment.	Mad. Reg. XXV of 1802, s. 9. Mad. Act II of 1864, s. 45.
Court-fee on plaint, &c., in suit to cancel or alter entry in	India Act VII of 1870, s. 6, sch. II, No. 17, ii.
Court-fee for copy of	India Act VII of 1870, s. 6, sch. I, No. 9.

REVENUE OFFICERS.

(1) *General.*

When exempted from service as juror or assessor	India Act X of 1882, s. 320 (*e*).
Powers of, for determination of disputes regarding boundaries ...	Mad. Reg. XII of 1816. India Act XXVIII of 1860, ss. 10-25.
Powers of, to enforce construction and maintenance of boundary-marks.	India Act XXVIII of 1860, ss. 2-8, 30.
Natives employed as, bound to report certain matters to police ...	India Act X of 1882, s. 45. Mad. Reg. I of 1830, s. 3.
Bound to assist in enforcing law relating to opium	India Act I of 1878, ss. 14, 15, 17.
salt officers	Mad. Act I of 1882, s. 23.

(2) *Special for Madras.*

Empowered to summon persons to appear or produce documents for any authorized inquiry.	Mad. Act III of 1880, s. 1. Mad. Act IV of 1871, s. 43.
Subordination of, to Board of Revenue	Mad. Reg. I of 1803, ss. 4, 5, 31, 33. Mad. Reg. II of 1803, ss. 5, 6.

REVENUE SETTLEMENT.

Settlement officer, powers of, in relation to fixing boundaries and boundary-marks.	Mad. Reg. XII of 1816. India Act XXVIII of 1860, ss. 2-8, 10-25, 30.
Director of, appellate and controlling powers of	India Act XXVIII of 1860, ss. 2, 26, 31.
Deputy Director of, powers of	India Act XXVIII of 1860, s. 31.
Officers of, subject to provisions of Regulations IX of 1822 and XII of 1828.	India Act XXVIII of 1860, s. 32.

RYOTWARRY TENURE.

Local rate to be entered in puttah of lands held on	Mad. Act IV of 1871, ss. 38, 46. Mad. Act I of 1878, s. 4.
Landholders under, when empowered to take summary proceedings for recovery of rent.	Mad. Act VIII of 1865, ss. 1, 13.

SALT.

(1) *General Provisions.*

Right of Government to revenue from, reserved	Mad. Reg. XXV of 1802, s. 4.
Commissioner of Salt Revenue, appointment and powers of ...	Mad. Act VI of 1878, s. 1.
Collectors, permission to withdraw powers of	Mad. Act VI of 1878, s. 2.

(2) *Monopoly.*

Manufacture, sale, transit and export prohibited except on account or with permission of Government.	Mad. Reg. I of 1805, s. 3.
Rate of payment and advances for, and quantum and places of ...	Mad. Reg. I of 1805, ss. 4, 5.
No proceedings to compel, but mirassy manufacturers to forfeit rights on refusal to continue.	Mad. Reg. I of 1805, ss. 6, 7.
Clandestine, liability of landholders, farmers, and managers for connivance at, and for not giving information of.	Mad. Reg. I of 1805, s. 13.
Importation by land, otherwise than by permission of Government prohibited.	Mad. Reg. I of 1805, s. 3.
Price of sale of salt by Government	Mad. Reg. I of 1805, s. 11. India Act XII of 1882, ss. 7, 8.
Redress for acts ordered by Government or Board of Revenue how obtained.	Mad. Reg. I of 1805, s. 21.

(3) *Excise.*

Duty. Power to levy, by way of excise	Mad. Act VI of 1871.
Method of levying	Mad. Act VI of 1871, s. 11. India Act XII of 1882, s. 31.
Bond for payment of	Mad. Act VI of 1871, ss. 19, 21.
Drawback of, on exportation and bond therefor	Mad. Act VI of 1871, ss. 20, 21.

Licenses for manufacture—	
Grant, contents, registry, and refusal of	Mad. Act VI of 1871, ss. 3, 6, 7.
Compensation on refusal of, in what cases and under what procedure awardable.	Mad. Act VI of 1871, ss. 6, 8, 26—41.
Unlicensed manufacture. Penalties for	Mad. Act VI of 1871, s. 4.
Duty of landholders and servants of Government or Court of Wards to give information regarding.	Mad. Act VI of 1871, s. 5.
Place of storage, supervision, and preventive stations	Mad. Act VI of 1871, ss. 9, 10, 12.
Importation by land or sea, power to restrict	Mad. Act VI of 1871, ss. 13, 14.
Confiscation of	Mad. Act I of 1882, s. 26.
Cognizance of offences	Mad. Act VI of 1871, s. 23.
Suit or prosecution for thing done in pursuance of law—	
Restrictions on	Mad. Act VI of 1871, s. 42.
Special plea allowed in ...	Mad. Act VI of 1871, s. 43.
Extent of Act and repeal of salt monopoly wherever extended ...	Mad. Act VI of 1871, ss. 1, 45.

(4) *Punishment and Detection of Offences.*

Search for and seizure of contraband salt and arrest of offenders.	Mad. Act I of 1882, ss. 3–8.
warrant for, when to be issued	Mad. Act I of 1882, s. 3.
search without	Mad. Act I of 1882, s. 4. Mad. Act IV of 1882, s. 1.
Report of seizure to superior officer	Mad. Act I of 1882, s. 5.
by Inspector to Magistrate confers jurisdiction	Mad. Act I of 1882, s. 18.
Custody by police of articles seized	Mad. Act I of 1882, s. 21.
Procedure upon arrest and admission to bail	Mad. Act I of 1882, ss. 9, 12.
Period of detention of accused	Mad. Act I of 1882, s. 20.
Summons to, and examination of, witnesses	Mad. Act I of 1882, s. 13–15, 19. Mad. Act IV of 1882, s. 2.
Dispensing with attendance of witnesses	Mad. Act I of 1882, s. 16.
Production of documents	Mad. Act I of 1882, s. 17.
Summons to persons suspected of offences against Salt laws ...	Mad. Act I of 1882, s. 22.
Officers of Police, Salt, Land Revenue and Customs Departments to assist each other.	Mad. Act I of 1882, s. 23.
Penalties for refusing to assist	Mad. Act I of 1882, s. 25.
for vexatious seizure and arrest	Mad. Act I of 1882, s. 24.
for breach of Act	Mad. Act I of 1882, s. 26.
of rules	Mad. Act I of 1882, s. 28.
Provisions of Criminal Procedure Code to apply to	Mad. Act I of 1882, s. 30.
Power to Government to make rules	Mad. Act I of 1882, s. 27.
Promulgation and force of rules	Mad. Act I of 1882, s. 29.
Saving of existing rules	Mad. Act I of 1882, s. 29A. Mad. Act IV of 1882, s. 3.

SEA CUSTOMS.

(1) *Tariff, Duties, and Drawbacks.*

Duty leviable on what goods	India Act VIII of 1878, s. 20. India Act XI of 1882, s. 3, schs. II & III.
on goods partially composed of dutiable articles ...	India Act VII of 1878, s. 21.
goods derelict jetsam, flotsam, and wreck ...	India Act VIII of 1878, s. 27.
re-imported articles of country produce ...	India Act VIII of 1878, ss. 25, 26.
Duty leviable on pepper exported from Cochin	India Act XI of 1882, s. 4.
goods crossing frontiers of foreign European settlements on coast-line of Madras.	India Act XI of 1882, s. 5.
salt, salted fish, opium, spirits carried from one port in British India to another.	India Act XI of 1882, ss. 2, 7. India Act VIII of 1878, s. 20.
importation of salt into Madras	Mad. Act VI of 1871, s. 14.
spirit rendered unfit for human consumption ...	India Act VIII of 1878, ss. 155, 167, No. 61.
timber	India Act VII of 1878, s. 39(*b*).
warehoused goods	India Act XII of 1864.
Exemptions from, either general or special, power to make ...	India Act VIII of 1878, s. 2.
of goods belonging to Government	India Act VIII of 1878, s. 20.
of passengers' baggage	India Act VIII of 1878, s. 24.
of re-imported articles of country produce ...	India Act VIII of 1878, ss. 25, 26.
of stores for use on ship	India Act VIII of 1878, ss. 28, 112.
Drawback when and to what extent allowed—	
on re-export generally	India Act VIII of 1878, ss. 42, 43, 49, 50, 117, Nos. 10, 12.
on export of spirit manufactured in British India ...	India Act VIII of 1878, s. 150.
Tariff values, power to fix and alter	India Act VIII of 1878, s. 22.
Duty and tariff valuation, effect on contracts, &c., of alteration of.	India Act VIII of 1878, ss. 37, 38.
Ascertainment of, and settlement of disputes regarding value of goods and amount of duty.	India Act VIII of 1878, ss. 29–35, 155, 195.
Abatement of duty when allowed on damaged goods	India Act VIII of 1878, ss. 33–35.
not allowed on damaged wine, spirits or beer.	India Act VIII of 1878, s. 35.
Payment and refund of duties, &c., erroneously remitted or levied.	India Act VIII of 1878, ss. 39, 40.
Power to give credit for, and keep account current of, duties and charges.	India Act VIII of 1878, s. 41.

(2) *Officers, Offices, &c.*

Appointment, suspension, and dismissal of	India Act VIII of 1878, ss. 6, 7.
Performance of duties of, by Collector of district where no custom-house.	India Act VIII of 1878, s. 8.
Rules regulating powers and duties of	India Act VIII of 1878, s. 9.
Exemption of, from service on jury or inquest or as assessors ...	India Act VIII of 1878, s. 10.
Chief officer of, duties of, in regard to native passenger ships ...	India Act VIII of 1876, ss. 5, 24, 29, 41, 44.

Collector of, to collect port dues	India Act XII of 1875, s. 48.
power of, to distrain and sell ship for arrears of port dues.	India Act XII of 1875, ss. 52, 54.
to collect coast light dues	India Act IX of 1879, ss. 3, 7-13.
to have charge of European spirits imported into Madras town by land.	India Act XIX of 1852, s. 11.
To assist in arresting witnesses in inquiries respecting misconduct, &c., of masters of merchant vessels.	India Act IV of 1875, s. 15.
Prize-ship when delivered to principal	27 & 28 Vic., c. 25, s. 16.
Powers of, to board vessels in ports	India Act XII of 1875, s. 16. India Act VIII of 1878, ss. 67, &c.
to detain and search emigrant vessels to prevent illegal embarkation.	India Act VII of 1871, s. 81. India Act V of 1877, s. 47.
in relation to seizure, &c., of salt illegally transported ...	India Act XVI of 1879, s. 6.
Appointment of customs houses	India Act VIII of 1878, s. 11(*f*).

(3) *Importation and Exportation.*

(*a*) *General Rules and Procedure.*

Prohibitions and restrictions	India Act VIII of 1878, ss. 18, 19, 167, No. 8. India Act III of 1882, s. 3.
Shipping and landing of goods, general rules regarding	India Act VIII of 1878, ss. 67-80, 167(24)-(32), 196.
of passengers' baggage and mails	India Act VIII of 1878, ss. 70, 75.
Appointment of ports, wharves, warehousing ports, warehouses and landing and boarding stations.	India Act VIII of 1878, ss. 11-17, 167, Nos. 2-7.
Wharfage fees when and how chargeable	India Act VIII of 1878, s. 199.

(*b*) *Importation.*

Import, manifest, contents and delivery of	India Act VIII of 1878, ss. 53-60, 167(13)-(20), (33), (35).
Unshipping, landing, entry inwards, and custody of goods ...	India Act VIII of 1878, ss. 81-88, 167 (33)-(39).
Clearance of goods for home consumption	India Act VII of 1878, s. 89.
Warehousing bond, pass, and warrant	India Act VIII of 1878, ss. 90-96, 109, 120, 121, 167(38), (41)-(43).
of arms, ammunition, and military stores only with sanction of Local Government.	India Act XI of 1878, s. 7.
Warehoused goods—	
Access of Customs Collector and owner to	India Act VIII of 1878, ss. 97-100, 167(44)-(47).
Payment of rent and dues on	India Act VIII of 1878, s. 101.
Removal of, from one warehouse to another	India Act VIII of 1878, ss. 102-109.
Sorting, repacking, mixing, and taking samples of	India Act VIII of 1878, ss. 100, 167(47).
Clearance of, for home consumption, exportation, or use as ships' stores.	India Act VIII of 1878, ss. 110-117, 120.
Duty when payable on	India Act VIII of 1878, ss. 110, 118, 119
Allowance on removal in case of wine, spirits, beer and salt ...	India Act VIII of 1878, ss. 116, 117.
Remission of duties on, when lost or destroyed	India Act VIII of 1878, ss. 100, 122, 206.
Compensation when claimable for loss or damage to	India Act VIII of 1878, ss. 123, 167, 206 (48), (49).
Duty on, and expenses of payment of, how enforced	India Act VIII of 1878, ss. 119, 126.
Transhipment of goods without payment of duty—	
allowed at Madras	India Act VIII of 1878, s. 128.
at other ports on delivery of bond	India Act VIII of 1878, s. 128.
in case of vessel returning to port or putting into another port.	India Act VIII of 1878, s. 141.
special rules regarding	India Act VIII of 1878, ss. 129-135, 167(54).
of arms, ammunition, and military stores, power to prohibit.	India Act XI of 1878, s. 10.

(*c*) *Exportation.*

Shipment of stores	India Act VIII of 1878, s. 28.
Drawback, time to claim and declaration as to	India Act VIII of 1878, ss. 45, 51, 52.
Port clearance when and how granted	India Act VIII of 1878, ss. 61-66, 167(16),(17) (21)-(23).
in case of native passenger ships	India Act VIII of 1876, ss. 9, 26.
without production of certificate of shipping master.	India Act I of 1859, ss. 31, 32.
not to be granted till payment of port tolls, dues and rates.	India Act XII of 1875, s. 53. India Act XV of 1879, s. 40.
till payment of coast light dues ...	India Act IX of 1879, ss. 5, 11.
without certificate as to provision of signals and lights.	India Act VII of 1880, s. 83.
Export, manifest, delivery and contents of	India Act VIII of 1878, ss. 63(*a*), 167, No. 16.
Order for entry outwards to be obtained before lading	India Act VIII of 1878, ss. 61, 136, 167(55).
to be refused in case of default as to statement of marking of load lines.	India Act VII of 1880, s. 35.
Clearance of goods for export generally	India Act VIII of 1878, ss. 137, 139, 167 (37), (56).
additional charge on, after grant of port clearance except in the case of treasure or opium.	India Act VIII of 1878, s. 139.
Bond when required on exportation	India Act VIII of 1878, ss. 138, 144-150.
Rules regarding unshipping or relanding of goods after clearance or during repairs.	India Act VIII of 1878, ss. 140-143, 154, 167 (57)-(60).

(4) *Coasting Trade.*

Appointment of ports specially for	India Act VIII of 1878, s. 12.
Inapplicability of certain provisions to	India Act VIII of 1878, s. 156.
Power to make regulations for	India Act VIII of 1878, ss. 157, 167(62).

Coasting vessels.	Delivery of manifest and granting of port clearance to, at first, intermediate and final ports.	India Act VIII of 1878, ss. 158–161, 167 (63)–(65).
	Discharge of cargo from	India Act VIII of 1878, ss. 162, 163.
	Special rules as to marking, &c., of load lines on ...	India Act VII of 1880, ss. 38–40.
	Grant and revocation of general pass for	India Act VIII of 1878, ss. 164, 167(66).
	Cargo books to be kept by masters of	India Act VIII of 1878, ss. 165, 169(67)–(70).
	Power to board and examine	India Act VIII of 1878, ss. 166, 167(71).

(5) *Offences and Legal Proceedings.*

Smuggling and other breaches of customs law, penalties for ...	India Act VIII of 1878, s. 167.
Confiscation of what articles allowable for offences against customs law.	India Act VIII of 1878, s. 168.
Powers of customs officers as to—	
search for and seizure of things liable to confiscation ...	India Act VIII of 1878, ss. 169–172, 178–181, 194.
arrest of offenders	India Act VII of 1878, ss. 173–177, 181.
adjudication of confiscations and penalties	India Act VIII of 1878, ss. 182–184.
levy of penalty for departure without port clearance from, or failure to bring to, at another customs port.	India Act VIII of 1878, s. 185.
Award of penalty by customs officer not to interfere with punishment under other law.	India Act VIII of 1878, s 186.
Offences not cognizable by customs officer triable summarily by Magistrate.	India Act VIII of 1878, s. 187.
Appeal from and revision of orders passed by customs officers ...	India Act VIII of 1878, ss. 188–191.
Power to detain goods in respect of which penalty has been awarded, or other goods of same owner.	India Act VIII of 1878, s. 192.
Enforcement of payment of penalties	India Act VIII of 1878, s. 193.
Search warrant when and by whom to be issued in case of customs offence.	India Act VIII of 1878, s. 172.
Procedure of police in respect of smuggled articles seized on suspicion of being stolen.	India Act VIII of 1878, s. 180.
Compensation for loss or injury claimable only on proof of neglect or wilful act.	India Act VIII of 1878, ss. 197, 206.
Notice of, and limitation of time for, proceedings other than suit.	India Act VIII of 1878, s. 198.

(6) *Miscellaneous and Local.*

Expenses incidental to compliance with customs law to be borne by owner.	India Act VIII of 1878, s. 196.
Documents. Duplicates of, when and how granted	India Act VIII of 1878, s. 200.
Amendment of, when and how allowed	India Act VIII of 1878, s. 201.
Custom house agent. Persons admissible as	India Act VIII of 1878, ss. 4, 5, 202, 302.
Publication of rules, &c.	India Act VIII of 1878, s. 204.

SHERIFF.

Fees of, for execution of mofussil process	India Act VIII of 1852, ss. 1—7.
Liability of, for escape of prisoner arrested on mofussil process ...	India Act VIII of 1852, s. 8.
To bring up body before Court to which writ of 'habeas corpus' is returnable.	31 Car. II, c. 2, s. 1.
Registration of document executed by, in official capacity.	India Act III of 1877, s. 88.
Fees to	24 & 25 Vic., c. 104, s. 15.
Production of prisoners on writ of 'cepi corpus' by	India Act X of 1882, s. 491 (*f*).
Military officer not to be	44 & 45 Vic., c. 58, s. 146.

SHERISTADARS.

When authorized to conduct investigations under Reg. IX of 1822 ...	Mad. Reg. VII of 1828, s. 4.

SPECIAL AGENCIES.

(1) *Godavery Agency.*

Defined	India Act XIV of 1874, s. 1, sch. I. India Act XV of 1874, s. 2, sch. VI.
Settlement of boundaries of	India Act XIV of 1874, s. 8.
Declaration as to enactment in force in	India Act XIV of 1874, ss. 3, 4.
Power to extend enactments to	India Act XIV of 1875, s. 5.
appoint officers for, and regulate their procedure ...	India Act XIV of 1874, ss. 6, 7, 11.
appoint place of imprisonment and transportation for offenders punished in.	India Act XIV of 1874, s. 9.

(2) *Ganjam and Vizagapatam Agencies.*

Excepted from Madras Civil Courts Act	India Act III of 1873, s. 1.
Administration of civil and criminal justice and superintendence of revenue in certain tracts of, vested in Collectors.	India Act XXIV of 1839, ss. 2, 3.
Power to issue rules for guidance of Collectors, and to provide for appeals and committals to High Court.	India Act XXIV of 1839, ss. 4—6.
Powers of Collectors to commit State offenders to prison ...	India Act XXIV of 1839, s. 7.
Power to alter limits of excepted tracts of	India Act XXIV of 1839, s. 8.

SUB-COLLECTOR.

In charge of division, powers of Collector exerciseable by	Mad. Reg. VII of 1828, s. 3 (1).
Power of Collector to delegate any powers to	Mad. Reg. VII of 1828, s. 3 (2).
to control, in exercise of power	Mad. Reg. VII of 1828, s. 3 (3).

SUBORDINATE JUDGES.

Number of, and locality of court of	India Act III of 1873, ss. 4, 5.
Appointment, suspension, and removal of	India Act III of 1873, ss. 6, 8, 18, 19.
Power to appoint commission for inquiry into misconduct of	India Act XXXVII of 1850, s. 24.
Jurisdiction of, local limits of	India Act III of 1873, s. 10.
original	India Act III of 1873, s. 12.
appellate	India Act III of 1873, s. 13.
Ministerial officers of Courts of, removal, transfer and duties of ...	India Act III of 1873, ss. 22—24 (a). India Act XIX of 1877, ss. 2, 3. India Act III of 1873, s. 30.
Temporary discharge of duties of District Judges by	India Act III of 1873, s. 25.
Subject to control of District Court	India Act III of 1873, ss. 13, 27.
Investiture of, with powers of Judge of Court of Small Causes	India Act III of 1873, s. 28.

SUNNUD I MILKEUT ISTIMRAR.

Grant and effect of	Mad. Reg. XXV of 1802, s. 3.
Terms of, to be observed in proceedings for recovery of arrears of land revenue.	Mad. Act II of 1864, s. 6.

SURVEY.

(1) *Survey and Measurement.*

Of land, powers of Revenue officers as to	Mad. Reg. XII of 1816. India Act XXVIII of 1860, ss. 2, 8, 10, 25, 30.
Forest Settlement officer as to	Mad. Act V of 1882, s. 9 (a).

(2) *Survey Records.*

Exempted from registration, but for certain purposes to be deemed registered.	India Act III of 1877, s. 90.
Inspection and copies of	India Act III of 1877, s. 91.

(3) *Boundaries.*

Of Presidencies, divisions, provinces and territories, power to alter, for purposes of Indian Councils Act.	24 & 25 Vic., c. 66, s. 47.
Disputes regarding, powers of revenue survey officers for determination of.	Mad. Reg. XII of 1816. India Act XXVIII of 1860, ss. 10-25.
appellate and controlling powers as to	India Act XXVIII of 1860, ss. 25, 26.
Powers of revenue officer for entry for inspection of	India Act XXVIII of 1860, s. 28.
Decree in suit relating to immovable property to identify property by reference to.	India Act XIV of 1882, s. 207.
Mischief by destroying or moving marks of	India Act XLV of 1860, s. 434.
interposition of police to prevent	India Act X of 1882, s. 152.
Of scheduled districts, settlements of	India Act XIV of 1874, s. 8.

(4) *Boundary-Mark.*

Of forest, moving, destroying or defacing, punishment for	India Act VII of 1878, s. 62 (e).
Construction, maintenance of—	
Powers of revenue officers to enforce, and liability of landholders for.	India Act XXVIII of 1860, ss. 2-8, 30.
Penalty for, and information regarding erasing or removing, &c. ..	India Act XXVIII of 1860, s. 9. Mad. Act V of 1882, s. 50 (d).

TAHSILDARS.

Engagement by sub-renter or person in charge of licensed still or shop to be executed in presence of.	Mad. Act III of 1864, ss. 8, 9.
Power of, to entertain claim relating to village cess on reference from Collector.	Mad. Act IV of 1864, s. 8.
To exercise powers of Collector under License Act subject to control of, and appeal to, Collector.	Mad. Act III of 1878, ss. 16, 27.
To conduct sales of movable property for arrears of land revenue ...	Mad. Act II of 1864, ss. 9, 22.
Empowered to sell property distrained for arrears of rent or revenue subject to control of Collector.	India Act VII of 1839, ss. 2—4.
attached by Collector in proceedings for recovery of public money, &c., from defaulters.	Mad. Reg. IX of 1822, s. 10.
Fees or commission for sale by, to be credited to Government	India Act VII of 1839, s. 5.
Empowered to delegate powers of sale to subordinates	India Act VII of 1839, s. 6.
When authorized to conduct investigations under Reg. IX of 1882 ...	Mad. Reg. VII of 1828, s. 4.
Duty of, to execute decrees in cases of disputes regarding boundaries, irrigation, &c.	Mad. Reg. XII of 1816, ss. 5 (5), 10.
Power of, to call for forced labour to prevent inundation by breach of embankment.	India Act I of 1858, ss. 1, 5.

VICE-ADMIRALTY COURT.

Appointment of Vice-Admirals, Judges, Registrars and Marshals ...	26 & 27 Vic., c. 24, ss. 3–6.
Confirmation of past proceedings	26 & 27 Vic., c. 24, s. 8.
Protection of officers of	26 & 27 Vic., c. 24, s. 9.
Power of Her Majesty to establish and alter rules and tables of fees ...	26 & 27 Vic., c. 24, ss. 14–19.
Oaths in, and penalty for false swearing	26 & 27 Vic., c. 24, s. 20.
Hearing of cross-causes in	26 & 27 Vic., c. 24, s. 21.

Jurisdiction of	26 & 27 Vic., c. 24, ss. 10-13.
as to offences against, and ships detained under, Foreign Enlistment Act.	33 & 34 Vic., c. 90, ss. 30, &c.
in certain maritime cases	2 & 3 Wm. IV, c. 51, s. 6.
Judicial acts of surrogates of, rendered valid	56 Geo. III, c. 82.
Act to regulate practice and fees in	2 & 3 Wm. IV, c. 51, ss. 1-4.
Time allowed for appeals against decrees and orders of	30 & 31 Vic., c. 45, s. 18.
Appointment of assessors for assistance of	India Act VII of 1830, s. 85.
Limitation of appeals from decrees of	5 Geo. IV, c. 113, s. 9.
Appeals from, to Queen in Council	3 & 4 Wm. IV, c. 41, s. 2. 26 & 27 Vic., c. 24, s. 22.
limitation of time for	26 & 27 Vic., c. 24, s. 23.
Jurisdiction of High Court as	24 & 25 Vic., c. 104, s. 9.
Saving of powers of Admiralty	26 & 27 Vic., c. 24, s. 7.
Jurisdiction of, in suits for bottomry, damage by collision, droits of Admiralty, pilotage, salvage.	2 & 3 Wm. IV, c. 51, s. 6.
Suits in, for contempt of authority in breach of regulations for sea service.	2 & 3 Wm. IV, c. 51, s. 6.
Jurisdiction and constitution of, in respect of vessels engaged in slave trade.	36 & 37 Vic., c. 88. 36 & 37 Vic., c. 59. 42 & 43 Vic., c. 38.

VILLAGE CESS.

Power to levy, rate of, and mode of recovery of	Mad. Act IV of 1864, ss. 2—4.
Application of, to payment of certain village servants	Mad. Act IV of 1864, ss. 5, 7.
Suits regarding enjoyment of, liability to or rate of, cognizable by Collector and not by Civil Court.	Mad. Act IV of 1864, s. 8.
Orders of Collector regarding, subject to appeal to Board of Revenue ...	Mad. Act IV of 1864, ss. 9, 10.
To be levied only in districts to which Act extended	Mad. Act IV of 1864, s. 11.

VILLAGE HEADMEN.

Included among village servants employed on revenue or police duties ...	Mad. Act IV of 1864, s. 7.
Information to be communicated and assistance to be given by, to each other and to police.	Mad. Reg. XI of 1816, ss. 8, 9.
Power of, to search, seize and arrest under Salt Laws Amendment Act ...	Mad. Act I of 1882, s. 6.
Jurisdiction of, to try petty offences of assault, affray and abuse ...	Mad. Reg. XI of 1816, s. 10.
of theft	Mad. Reg. IV of 1821, s. 6.
to search for stolen property	Mad. Reg. XI of 1816, s. 11.
to hold inquest on dead body and arrest suspected murderer.	Mad. Reg. XI of 1816, s. 13.
as to offences by village police	India Act XXIV of 1859, s. 50.
Punishments awarded by, how registered and reported	Mad. Reg. XI of 1816, ss. 10, 14. Mad. Reg. IV of 1821, s. 6.
Duties of, under Abkarry Law to search and seize implements for distillation and illicit liquors and to assist Abkarry officers.	Mad. Act III of 1864, ss. 24B, 24C. Mad. Act V of 1879, s. 4 (viii).
Jurisdiction and procedure of, not affected by Code of Criminal Procedure.	India Act X of 1882, s. 1 (c).
Power of, to call for forced labour to prevent inundation by breach of embankment of river, canal, or anicut.	India Act I of 1850, ss. 1, 5.
to hold inquest	India Act X of 1882, s. 174.

VILLAGE MOONSIFS.

Heads of villages constituted	Mad. Reg. IV of 1816, ss. 2, 3.
Jurisdiction of, as Judge	Mad. Reg. IV of 1816, ss. 5-8.
as arbitrator	Mad. Reg. IV of 1816, ss. 27, 28.
not affected by Mofussil Court of Small Causes	India Act XI of 1865, s. 12.
and procedure of, not affected by Code of Civil Procedure...	India Act XIV of 1882, s. 6 (c).
Plaint in suits before, contents of	Mad. Reg. IV of 1816, s. 11.
exempt from court-fee	India Act VII of 1870, s. 19 (5).
Attendance before, how procured of defendant	Mad. Reg. IV of 1816, ss. 12, 17.
witnesses	Mad. Reg. IV of 1816, ss. 15, 16.
Duty of, to cause attendance of witnesses, &c., before village punchayets.	Mad. Reg. V of 1816, ss. 4, 5.
Power of, to appoint village punchayets for trial of certain suits ...	Mad. Reg. V of 1816, s. 2. Mad. Reg. XII of 1816, ss. 5, 6.
General rules of procedure in suits before	Mad. Reg. IV of 1816, ss. 13, 14, 18.
Examination of witnesses before	Mad. Reg. IV of 1816, ss. 15, 16.
Decree. Contents of, and delivery of copies of	Mad. Reg. IV of 1816, ss. 20, 21, 24.
Time for, and manner of execution of, by attachment and sale.	Mad. Reg. IV of 1816, ss. 23, 29-31.
How and by whom set aside	Mad. Reg. IV of 1816, ss. 4, 29.
Contempts of, how punishable	Mad. Reg. IV of 1816, ss. 15, 16, 19, 25, 30 (6).
Persons authorized to plead before	Mad. Reg. IV of 1816, s. 9. Mad. Reg. XIV of 1816, s. 39. India Act I of 1846, s. 13.
Prosecution of, for corruption, &c.	Mad. Reg. IV of 1816, s. 35.
Duty of curnums to assist	Mad. Reg. IV of 1816, ss. 10, 21, 30, 31, 39.

VILLAGE POLICE.

(1) *General.*

Petition, complaint, &c., to, relating to offence, exempted from court-fee.	India Act VII of 1870, s. 19, xvi.
Jurisdiction of village headmen as to offences by	India Act XXIV of 1859, s. 50.

(2) *Special for Madras.*

Included in General Police Force	India Act XXIV of 1859, s. 1.

VILLAGE PUNCHAYETS.

Number and composition of, and decision of, according to majority ...	Mad. Reg. V of 1816, s. 3.
Member of, liable to prosecution for corruption	Mad. Reg. V of 1816, s. 18.
punishment for refusal to serve as	Mad. Reg. V of 1816, s. 3 (2).
Jurisdiction of, in what suits on agreement of parties	Mad. Reg. V of 1816, ss. 2, 12.
in disputes on reference from Collector regarding boundaries, occupation, irrigation, &c., of land.	Mad. Reg. XII of 1816, ss. 2, 5, 6, 11.
not affected by Mofussil Court of Small Causes	India Act XI of 1865, s. 12.
and procedure of, not affected by Code of Civil Procedure ...	India Act XIV of 1882, s. 6 (c).
Procedure, attendance of parties, and examination and attendance of witnesses before.	Mad. Reg. V of 1816, ss. 4, 5, 10.
Decree of, contents of, and delivery of copies of	Mad Reg. V of 1816, ss. 7-9. Mad. Reg. XII of 1816, ss. 6-8.
provision for signing on difference of opinion between members of punchayet.	India Act VIII of 1840.
how and by whom set aside	Mad. Reg. V of 1816, s. 11. Mad. Reg. XII of 1816, s. 9.
execution of	Mad. Reg. V of 1816, ss. 16, 17. Mad. Reg. XII of 1816, s. 10.
when absolutely final	Mad. Reg. V of 1816, s. 11 (5). Mad. Reg. XII of 1816, s. 9 (2).
Duty of curnum to assist	Mad. Reg. V of 1816, ss. 4, 8-10, 20.
Contempts of, how punishable	Mad. Reg. V of 1816, s. 5.
Persons authorized to plead before, and fees allowed to pleaders, &c. ...	Mad. Reg. V of 1816, ss. 4 (3), 11, 13, 17. Mad. Reg. XIV of 1816, s. 39. India Act I of 1846, s. 13.
Assessment by, of damages to be paid by member of village community for refusal of customary labour.	India Act I of 1858, s. 6.

VILLAGE SERVANTS.

Employed in revenue or police duties :—

Fees or dues payable for, recoverable as arrears of land revenue.	Mad. Act II of 1864, s. 52.
Fees for, abolished	Mad. Act IV of 1864, ss. 1, 6.

VILLAGE WATCHMAN.

Bound to report certain matters to police	India Act X of 1882, s. 45. India Act VII of 1878, s. 78. India Act XVI of 1873, s. 8. India Act XVIII of 1876, s. 34.
Powers of, in relation to impounding of cattle	India Act I of 1871, ss. 3, 10, 11.
Duty of, in regard to criminal tribes	India Act XXVII of 1871, ss. 18 (2), 21, 22. India Act VII of 1876, s. 2.
Application of village-cess to payment of	Mad. Act IV of 1864, ss. 5-7.

WARDS' ESTATES.

Jurisdiction of, not affected by powers of Civil Court in regard to custody and guardianship of minors.	India Act IX of 1861, s. 7.
Payment into, of legacy immediately payable to minor under its charge.	India Act X of 1865, s. 308. India Act V of 1881, s. 127.
Collector on behalf of, may apply for inquiry into lunacy of person possessed of property in the mofussil.	India Act XXXV of 1858, s. 3.
When must be authorized to take charge of estate of lunatic	India Act XXXV of 1858, s. 9.
When may assume charge of property of lunatic subject to jurisdiction of High Court.	India Act XXXIV of 1858, s. 24.
Not to appoint guardian of person of such lunatic	India Act XXXIV of 1858, s. 24.
When must be appointed curator in cases of succession	India Act XIX of 1841, s. 16.
When may apply for relief in cases of wrongful possession on succession.	India Act XIX of 1841, s. 2.
Native officer of, bound to report certain matters to police	India Act X of 1882, s. 45.
Guardian or manager of, saved from general rules respecting suits by or against minors and lunatics.	India Act XIV of 1882, s. 464.
Lessees of, not entitled to transfer interest under lease	India Act IV of 1882, s. 108 (j).
Board of Revenue constituted	Mad. Reg. V of 1804, s. 2.
Appeal from orders of, to High Court, when allowed	Mad. Reg. V of 1804, s. 24 (4).
Powers of, extend only to property paying revenue	Mad. Reg. V of 1804, s. 2.
sanction of Government required to exercise of	Mad. Reg. V of 1804, s. 2.
Power of, to assume charge of estates at any time during minority ...	Mad. Reg. X of 1831, s. 2 (2).
Procedure in order to taking charge of estates of females and minors ...	Mad. Reg. V of 1804, ss. 3, 4, 6, 7.
Powers and duties of Collectors as agents for	Mad. Reg. V of 1804, ss. 3, 6, 8, 12, 14, 16-18, 21, 22. India Act XXI of 1855, ss. 1-9.
Appeal from orders of Collector to, when allowed	India Act XXI of 1855, s. 10.
Managers of estates, appointment of, security to be furnished by, and duties and powers of.	Mad. Reg. V of 1804, ss. 8-15.
to have power to proceed summarily for recovery of arrears of rent.	Mad. Act VIII of 1865, s. 85.
Guardians, appointment and removal of, security to be given by, remuneration and duties of.	Mad. Reg. V of 1804, ss. 18-23.
Collectors, managers, and guardians, liable for fraud or other misconduct.	India Act XXI of 1855, ss. 5-7.
Wards, lands of, not answerable for payment of revenue	Mad. Reg. V of 1804, ss. 6, 24, 26, 27.
payment of debts of	Mad. Reg. V of 1804, s. 14.
to be sued only through guardian	Mad. Reg. V of 1804, s. 17.
not to adopt without consent of Court	Mad. Reg. V of 1804, s. 23.

Minor wards, education of, and of brothers of	Mad. Reg. V of 1804, s. 25. Mad. Reg. V of 1804, s. 21 (9), (10). India Act XXI of 1855, ss. 1-8.
abetment of marriage of, and of brothers and sisters of, without sanction, how punishable.	India Act XXI of 1855, s. 9.
Estates under, leases, and transfers of, subject to sanction	Mad. Reg. V of 1804, s. 15.
Saving of jurisdiction of, under India Act XXI of 1855	India Act IX of 1861.

WEIGHTS AND MEASURES.

Primary and local standards of	India Act XXXI of 1871, ss. 2-7, 11 (c), (d).
Standards of, to be kept by Magistrate of District	India Act XLVIII of 1860, s. 17.
Units of	India Act XXXI of 1871, s. 3.
Power to prescribe use of, by Government offices, Municipal bodies, and Railway Companies.	India Act XXXI of 1871, ss. 8, 9, 11 (h), 12, 13.
Wardens, appointment and duties of	India Act XXXI of 1871, ss. 10, 11, 14, 15.
penalty for counterfeiting mark used by	India Act XXXI of 1871, s. 16.
Power to make rules regarding magnitude, denomination, dimension, verification, marking, &c., of weights, measures, and weighing machines.	India Act XXXI of 1871, ss. 4, 11, 12.
Tables of equivalents, publication and effect of	India Act XXXI of 1871, s. 17.
False, fraudulent use or possession of, punishment for	India Act XLV of 1860, ss. 264-266.
triable summarily	India Act X of 1882, s. 260 (b).
making or selling	India Act XLV of 1860, s. 267.
power of officer in charge of police station to inspect and seize.	India Act X of 1882, s. 153.
Definition of tolah and seer for purposes of Excise Act	India Act XXII of 1881, s. 3 (i), (j).
Powers of police in respect of, in Presidency towns	Mad. Act VIII of 1867, s. 44.

APPENDIX No. LV.

LOCATION OF REVENUE OFFICERS, FROM COLLECTOR TO DEPUTY TAHSILDAR, WIT PARTICULARS REGARDING THEIR CHARGES.

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Anantapore.	Collector, Anantapore (Anantapuramu, *Tel.* Anantapur*).	1. Anantapore (Anantapuramu, *Tel.* Anantapur*), Rupees 175.	......	868	91,816	1,16,610	
	Head Assistant Collector, Penoocondah (Penukonda,* *Tel.*).	1. Penoocondah (Penukonda,* *Tel.*), Rupees 150.	Bookkapatam (Bukkapatnamu, *Tel.* Bukkapatnam*), Rupees 70.	655	73,023	1,00,239	
		2. Hindoopore (Hindupuramu, *Tel.* Hindupur*), Rupees 150.	......	425	73,270	1,14,938	
		3. Madaksira (Madakasíra,* *Can.*), Rupees 150.	......	362	55,113	85,081	
		4. Dharmavaram* (Dharmavaramu, *Tel.*), Rupees 200.	Calyaundroog (Kalyánadurgamu, *Tel.* Kalyándrúg*), Rupees 100.	1,192	97,106	1,19,903	
			Total ...	2,634	298,512	4,20,161	
	General Deputy Collector, Gooty* (Gutti, *Tel.*).	1. Gooty* (Gutti, *Tel.*), Rupees 200.	Ooravacondah (Uravakonda,* *Tel.*), Rupees 70.	1,010	110,597	1,91,350	
		2. Tadpatry (Tádiparti, *Tel.* Tadpatri*), Rupees 200.	Yaudicy (Yádiki, *Tel.*), Rupees 70.	591	98,964	1,66,056	
			Total ...	1,601	209,561	3,57,406	
			Grand Total ...	5,103	599,889	8,94,177	
Arcot, North.	Collector, Chittore (Chittúru, *Tel.* Chittoor*).	1. Chittore (Chittúru, *Tel.* Chittoor*), Rupees 175. This talook includes the Polliems of Naraganty (Náraganti, *Tel.* Naragunti*). Bungaur (Bangáru,* *Tel.*), Toomba (Tumba, *Tel.*), and Goodiputty (Gudipáti, *Tel.*).	......	771	171,907	2,15,751	
		2. Chundragherry (Chandragiri,* *Tel.*), Rupees 150. This talook includes the Polliems of Culloor (Kallúru, *Tel.*) and Poolicherla (Pulicherla,* *Tel.*).	Calastry (Kálahasti,* *Tel.*), Rupees 100. *Mag.* Narrainavaram (Nárâyanavaramu, *Tel.* Nárâyanavaram*), Rupees 100. *Mag.* Tripatty (Tiruppathi, *Tam.* Tirupati*), Rupees 70.	548	93,151	84,748	
		3. Pulmanair (Palamanéri, *Tam.* Palmanér*), Rupees 150.	Poonganore (Punganúru, *Tel.* Punganúr*), Rupees 100. *Mag.*	439	41,815	66,154	
		4. Poonganore (Punganúru, *Tel.* Punganúr*) Zemindarry.	Vencatagherrycottah (Venkatagirikóta, *Tel.*), Rupees 70.	674	72,143	66,859	
			Total ...	2,432	379,016	4,33,512	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Arcot, North – (*Continued*).	Sub-Collector, Vellore* (Vélúr, *Tam.*).	1. Arcot* (Árkkádu, *Tam.*), Rupees 225.	......	432	147,388	3,12,863	
		2. Vellore* (Vélúr, *Tam.*), Rupees 175.	Vellore* (Vélúr, *Tam.*) Town, Rupees 70.	454	170,216	1,85,081	
		3. Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam*), Rupees 175.	Cungoondy (Kangundi,* *Tel.*), Rupees 100. *Mag.*	446	154,646	2,26,125	
		4. Cungoondy (Kangundi,* *Tel.*) Zemindarry.	......	346	45,184	22,959	
			Total ...	1,678	517,434	7,47,028	
	Head Assistant Collector, Ranipett (Ránippéttai, *Tam.*).	1. Wallajahpett (Válásáppéttai, *Tam.* Wálajápet*), Rupees 250. This talook includes the Mittah of Argilavaudy (Arigilavádi, *Tam.*).	Arconum (Árkkónam, *Tam.* Arkónam*), Rupees 70. Maderpauk (Mátharppákkam, *Tam.*), Rupees 70. *Mag.* Trittany (Tiruttani, *Tam.* Tirutani*), Rupees 100. *Mag.*	484	199,177	3,73,231	
		2. Calastry (Kálahasti,* *Tel.*) Zemindarry.	......	874	118,022	1,75,003	
		3. Carvetnugger (Kárvétinagaramu, *Tel.* Kárvetnagar*) Zemindarry.	......	943	275,830	1,79,862	
			Total ...	2,301	593,029	7,28,096	
	General Deputy Collector, Arnee (Árani, *Tam.* Árni*).	1. Wandiwash* (Vandavási, *Tam.*), Rupees 200.	......	466	148,100	3,19,830	
		2. Poloor (Pólúrn, *Tam.* Pólúr*), Rupees 150.	Arnee (Árani, *Tam.* Árni*), Rupees 70. *Mag.*	443	106,818	1,83,274	
		3. Arnee (Árani, *Tam.* Árni*) Jagheer.	......	183	73,417	5,086	
			Total ...	1,092	328,335	5,08,190	
			Grand Total ...	7,503	1,817,814	24,16,826	
Arcot, South.	Collector, Cuddalore* (Kúdalúr, *Tam.*).	1. Cuddalore* (Kúdalúr, *Tam.*), Rupees 225. This talook includes the Mittahs of Alaginuttam (Azhaginattam, *Tam.*), Chinnappanaickenpolliem (Shinnappanáyakkambálaiyam, *Tam.*), Nadoo Veeraputt (Nadu vírappattu, *Tam.*).	Panrooty (Pannurutti, *Tam.* Panruti*), Rupees 70.	459	298,523	3,94,548	
	Sub-Collector, Tindivanam* (*Tam.*).	1. Tindivanam* (*Tam.*), Rupees 225.	Jinjee (Sheñji, *Tam.* Gingee*), Rupees 70. Mercaunum (Marakkánam, *Tam.*), Rupees 70.	816	264,261	4,92,603	
		2. Trinomallee (Tiruvannámalai,* *Tam.*), Rupees 150. This talook includes the Mittah of Vettavalam (*Tam.*).	Chengam* (Shengam, *Tam.*), Rupees 70.	944	153,222	2,27,018	
		3. Villoopooram (Villuppuram, *Tam.* Villupuram*), Rupees 250. This talook includes the Mittah of Mundacaputt (Mandagappattu, *Tam.*).	Vaunore (Vánúr, *Tam.*), Rupees 70.	508	243,896	4,52,288	
			Total ...	2,268	661,379	11,71,909	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Arcot, South—(*Continued*).	Head Assistant Collector, Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam*).	1. Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam*), Rupees 200.	Tittagoody (Tittakkudi, *Tam.* Titagudi*), Rupees 70.	566	187,068	3,56,255	
		2. Chidambaram* (Shithambaram, *Tam.*), Rupees 250.	Bhoovangherry (Puvanakkiri, *Tam.* Bhuvanigiri*), Rupees 70. Munnargoody (Mannárkkudi, *Tam.* Mannárgudi*), Rupees 70.	393	265,250	6,70,996	
			Total ...	959	452,318	10,27,251	
	General Deputy Collector, Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr*).	1. Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr*), Rupees 200.	Ooloondoorpett (Ulundúrpéttai, *Tam.* Ulundurpet*), Rupees 70.	580	206,489	3,62,732	
		2. Cullacoorchy (Kallakkuriççi, *Tam.* Kallakurchi*), Rupees 175.	......	607	196,029	3,03,071	
			Total ...	1,187	402,518	6,65,803	
			Grand Total ...	4,873	1,814,738	32,59,511	
Bellary.	Collector, Bellary* (Ballári, *Tel.*).	1. Bellary* (Ballári, *Tel.*), Rupees 225.	Bellary* (Ballári, *Tel.*), Rupees 100. *Mag.* Siroogooppa (Shiruguppa, *Tel.* Siruguppa*), Rupees 70.	925	148,747	2,44,341	
		2. Royadroog (Ráyadurgama, *Tel.* Ráyadrug*), Rupees 175.	......	898	83,799	1,33,998	
			Total ...	1,823	232,546	3,78,339	
	Head Assistant Collector, Hospett (Hosapéte, *Can.* Hospet*).	1. Hospett (Hosapéte, *Can.* Hospet*), Rupees 175.	Cumply (Kampali, *Tel.* Kampli*), Rupees 70.	480	85,500	1,45,590	
		2. Hurpanhully (Harapanahalli, *Can.* Harpanahalli*), Rupees 150.	......	631	70,620	1,04,158	
		3. Hoovinhadgally (Húvinahadagalli, *Can.* Huvinahadgalli*), Rupees 150.	......	534	75,572	1,27,965	
		4. Coodligy (Kúdligi,* *Tel.*), Rupees 175.	......	839	74,366	95,640	
			Total ...	2,484	306,058	4,73,353	
	General Duty Deputy Collector, Adony (Ádaváni, *Tel.* Ádóni*).	1. Auloor (Álúru, *Tel.* Álúr*), Rupees 175.	......	646	65,586	2,31,064	
		2. Adony (Ádaváni, *Tel.* Ádóni*), Rupees 200.	Yemmiganore (Yemmiganúru, *Tel.* Yemmiganúr*), Rupees 70.	787	122,085	1,95,462	
			Total ...	1,433	187,671	4,26,526	
			Grand Total ...	5,740	726,275	12,78,218	
Canara, South.	Collector, Mangalore* (Mangalúru, *Can.*).	1. Mangalore* (Mangalúru, *Can.*), Rupees 225.	Amindivy (Amindivi, *Mal.*), Rupees 70. Buntwaul (Bantvála, *Can.* Bantvál*), Rupees 70. Mangalore* (Mangalúru, *Can.*), Rupees 100. *Mag.*	620	252,721	3,47,633	
	Head Assistant Collector, Coondapore (Kundápura, *Can.* Coondapoor*).	1. Oodipy (Udipi,* *Can.*), Rupees 225.	Caurcal (Kárkala, *Can.*), Rupees 70.	787	237,432	3,27,448	
		2. Coondapore (Kundápura, *Can.* Coondapoor*), Rupees 150.	......	512	115,113	2,09,688	
			Total ...	1,299	352,545	5,37,136	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.*= Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Canara, South.—(*Continued*).	General Deputy Collector, Poottoor (Puttúru, *Can.*).	1. Cassergode (Kásaragódu, *Can.* Kásaragód*), Rupees 200.	Neeleshwar (Níléshvara, *Can.*), Rupees 70.	1,032	243,881	2,45,451	
		2. Ooppinangady (Uppinangadi,* *Can.*), Rupees 175.	Beltanguddy (Beltangadi, *Can.*), Rupees 70.	951	110,367	1,44,280	
			Total ...	1,983	354,248	3,89,731	
			Grand Total ...	3,902	959,514	12,74,500	
Chingleput.	Collector, Sydapett (Shaitháppéttai, *Tam.* Saidápet*).	1. Trivellore (Tiruvallúr,* *Tam.*), Rupees 175.	Suttivaid (Shattiyavédu, *Tam.*), Rupees 70.	507	143,324	2,74,820	
	Sub-Collector, Chingleput* (Shengalppattu, *Tam.*).	1. Chingleput* (Shengalppattu, *Tam.*), Rupees 175.	......	436	117,218	1,90,183	
		2. Madrantacam (Mathurántagam, *Tam.* Madurántakam*), Rupees 225.	Ootramallore (Uttiranmérúr, *Tam.*), Rupees 70.	696	223,067	4,06,478	
		3. Conjeeveram* (Káñjípuram, *Tam.*), Rupees 200.	Conjeeveram* (Káñjípuram, *Tam.*), Rupees 100. Shreepermatore (Shirípperumbúthúr, *Tam.* Srípe-rumbudur*), Rupees 70.	514	185,649	3,85,954	
			Total ...	1,646	525,934	9,82,615	
	General Deputy Collector, Sydapett (Shaitháppéttai, *Tam.* Saidápet*).	1. Sydapett (Shaitháppéttai, *Tam.* Saidápet*), Rupees 175.	Poonamallee* (Púvirundamalli, *Tam.*), Rupees 70.	340	204,580	2,59,935	
		2. Ponnairy (Ponnéri,* *Tam.*), Rupees 150.	......	347	107,543	2,06,311	
			Total ...	687	312,123	4,66,246	
			Grand Total ...	2,840	981,381	17,23,681	
Coimbatore.	Collector, Coimbatore* (Kóyamuttúr, *Tam.*).	1. Coimbatore* (Kóyamuttúr, *Tam.*), Rupees 200.	Coimbatore* (Kóyamuttúr, *Tam.*), Rupees 70. Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam*), Rupees 70.	804	267,804	3,21,759	
	Sub-Collector, Erode* (Íródu, *Tam.*).	1. Erode* (Íródu, *Tam.*), Rupees 225.	Peroondoray (Perundurai,* *Tam.*), Rupees 70.	598	195,669	3,61,797	
		2. Dharaupooram (Táráppuram, *Tam.* Dhárápuram*), Rupees 200.	Caungyam (Kángayam, *Tam.* Kángyam*), Rupees 70.	836	195,232	3,34,934	
		3. Caroor (Karúr,* *Tam.*), Rupees 175.	Aravacoorchy (Aravakuriççi, *Tam.* Aravakurchi*), Rupees 70.	612	177,155	2,80,859	
		4. Bhawany (Paváni, *Tam.* Bhaváni*), Rupees 150.	......	721	94,123	1,07,979	
			Total ...	2,767	662,179	10,85,569	
	Head Assistant Collector, Pollachy (Polláççi, *Tam.* Polláchi*).	1. Pulladam (Palladam,* *Tam.*) Rupees 225.	Avanashy (Avanási, *Tam.* Avanáshi*), Rupees 70.	742	213,391	3,59,220	
		2. Pollachy (Polláççi, *Tam.* Polláchi*), Rupees 175.	......	693	172,909	2,24,272	
		3. Oodamalpett (Udumalppéttai, *Tam.* Udamalpet*), Rupees 175.	......	542	112,572	2,04,043	
			Total ...	1,977	498,872	7,87,535	
	General Deputy Collector, Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam*).	1. Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam*), Rupees 200.	Talavaudy (Tálavádi,* *Tam.*), Rupees 70.	1,180	151,313	3,13,424	
		2. Collegaul (Kollégálam, *Tam.* Kollegál*), Rupees 150.	......	1,076	77,522	86,574	
			Total ...	2,256	228,835	3,99,998	
			Grand Total ...	7,804	1,657,690	25,94,861	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	DeputyTahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Cuddapah.	Collector, Cuddapah* (Kadapa, *Tel.*).	......	......	...	...	...	
	Sub-Collector, Madanapully (Madanapalle,* *Tel.*).	1. Royachoty (Ráyatsóti, *Tel.* Ráyachóti *) Rupees 175.	......	998	92,541	1,19,462	
		2. Kadiry (Kadiri,* *Tel.*), Rupees 175.	......	1,165	116,252	1,25,440	
		3. Voilpaud (Váyalpádu, *Tel.* Váyalpád*), Rupees 175.	Peelair (Píléru, *Tel.* Pílér*), Rupees 70.	831	104,462	1,49,928	
		4. Madanapully (Madanapalle,* *Tel.*), Rupees 175.	......	836	106,215	1,63,928	
			Total ...	3,830	419,470	5,58,758	
	Head Assistant Collector, Cuddapah * (Kadapa, *Tel.*).	1. Jummalmudoogoo (Jammalamadugu,* *Tel.*), Rupees 200.	......	616	91,958	2,09,577	
		2. Proddootore (Proddutúru, *Tel.* Proddutur *), Rupees 175.	......	487	90,653	1,93,806	
		3. Poolivendla (Pulivendala, *Tel.* Pulivendla *), Rupees 175.	......	701	95,617	1,73,638	
			Total ...	1,804	278,228	5,77,021	
	General Deputy Collector, Sidhout (Siddhavattamu, *Tel.* Siddhavattam *).	1. Budwail (Badvélu, *Tel.* Badvél *) Rupees 150.	......	755	82,445	1,25,861	
		2. Sidhout (Siddhavattamu, *Tel.* Siddhavattam *) Rupees 150.	......	610	59,076	97,805	
		3. Poollampett (Pullampéta, *Tel.* Pullampet *), Rupees 200.	Chitwail (Chitvélu, *Tel.* Chitvél) Rupees 70.	979	134,366	2,03,595	
			Total ...	2,344	275,887	4,27,261	
	Assistant Collector, Cuddapah * (Kadapa, *Tel.*).	1. Cuddapah * (Kadapa, *Tel.*), Rupees 225.	Camalaupooram (Kamalápuramu, *Tel.* Kamalápuram *) Rupees 70. Cuddapah * (Kadapa, *Tel.*), Rupees 100.	760	147,453	2,46,652	
			Grand Total ...	8,738	1,121,038	18,09,692	
Ganjam.	Collector, Chetterpore (Chhatrapuramu, *Tel.* Chatrapur *).	1. Palore (Pálúru, *Tel.* Pálúr,* *Tam.*) Zemindarry.	......	24	5,605	553	
		2. Hoomma (Humma, *Tel.*) Zemindarry.	......	9	3,787	1,163	
		3. Cullicote (Kallikóta, *Tel.* Kallikót*) Zemindarry.	......	231	55,211	18,975	
		4. Biridy (Biroli, *Oor.* Biridi,*) Zemindarry.	......	47	13,928	4,457	
			Total ...	311	78,531	25,148	
		1. Pondakholl (Pondákhollo, *Tel.*), Maliah Tracts.	......	...	1,766	...	The extent and cuttoobuddy of this Mittah area are included in the Goomsoor talook.
		......	......	33	2,949	...	
		......	......	37	955	...	
				70	5,670	...	
			Total ...	381	84,201	...	
	Principal Assistant Collector, Chicacole * (Shríkákulamu, *Tel.*).	1. Chicacole * (Shríkákulamu, *Tel.*), Rupees 175.	Narsannapett (Narasannapéta, *Tel.* Narsannapet *), Rupees 70. Tekkaly (Tekkali,* *Tel.*), Rupees 100.	412	164,609	2,70,067	
		2. Shreecoormam (Shríkurmamu, *Tel.*) of Vizianagram* (Vijayanagaramu, *Tel.*) Zemindarry.	......	$17\frac{3}{4}$	18,283	...	The revenue is included in that of the Vizianagram Zemindarry, Vizagapatam District.
		3. Caracavalsa (Karakavalasa, *Tel.*) Zemindarry.	......	49	8,054	4,048	
		4. Moonagavalsa (Munagavalasa, *Tel.*) Zemindarry.	......	49	4,125	3,978	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Ganjam—(*Continued*).	Principal Assistant Collector, Chicacole* (Shríkákulamu, *Tel.*)—(*Continued*).	5. Gottipully (Gottipalli, *Tel.*) and Yembaraum (Yembarámu, *Tel.*), Zemindarries.	......	49	5,348	4,049	
		6. Pautatekkaly (Pátatekkali,* *Tel.*) Zemindarry estates.	......		14,617	...	
		7. Ragoonathapooram, (Raghunádhapuramu, *Tel.* Raghunáthapuram*), Zemindarry.	......		15,419	...	
		8. Temboor (Tembúru, *Tel.*), Zemindarry.	......		3,786	...	
		9. Nowgaum (Naugámu, *Tel.*), Zemindarry.	......		2,032	...	
		10. Nundigaum (Nandigámu, *Tel.* Nandigám*), Zemindarry.	......		10,702	...	
		11. Talagaum Talagámu, *Tel.*), Zemindarry.	......	178	12,388	...	
		12. Bharanigaum (Bharinigámu, *Tel.*), Zemindarry.	......		36	...	
		13. Penta (*Tel.*), Zemindarry.	......		634	...	
		14. Chinnaury Gokarnapully (Chinnárigókarnapalli, *Tel.*), Zemindarry.	......		35	...	
		15. Khallada (*Tel.*), Zemindarry.	......		1,807	...	
		16. Bejjipully (Bejjipalli, *Tel.*), Zemindarry.	......		185	...	
		17. Potooloor (Pótulúru, *Tel.*), Zemindarry.	......		44	...	
		18. Tarlah (Tarlá,* *Tel.*), Zemindarry.	......	52	27,035	4,000	
		19. Saukipully (Tsákipalli, *Tel.*) Zemindarry.	......	$\frac{3}{4}$	851	869	
		20. Consoolacottore (Konusulakottúru, *Tel.*) Zemindarry.	......	$\frac{1}{2}$	606	393	
		21. Tarlipett (Tarlipéta, *Tel.*) Zemindarry.	......	$\frac{3}{4}$	394	255	
		22. Chinnatoongam (Chinnatungamu, *Tel.*) Zemindarry.	......	$\frac{3}{8}$	416	425	
		23. Peddatoongam (Peddatungamu, *Tel.*) Zemindarry.	......	$\frac{5}{16}$	433	424	
		24. Talavalasa (*Tel.*), or Talabhadra, (*Tel.*) Zemindarry.	......	$\frac{3}{8}$	295	424	
		25. Jarjanjy (Jarjanji, *Tel.*) Zemindarry.	......	$2\frac{3}{4}$	1,627	1,002	
		26. Yellamanchily (Yellamanchili, *Tel.*) Zemindarry.	......	1	508	654	
		27. Boddaum (Boddámu, *Tel.*) Zemindarry.	......	$1\frac{3}{4}$	217	89	
		28. Belamarapalavalasa (*Tel.*) Zemindarry.	......	$2\frac{1}{8}$	705	1,043	
		29. Gopalpore (Gópálapuramu, *Tel.* Gopálpur*) Zemindarry.	......	5	5,430	3,699	
		30. Chittivalsa (Chittivalasa, *Tel.*) Zemindarry.	......	$7\frac{7}{16}$	5,094	2,074	
		31. Oorlaum (Urlámu, *Tel.* Urlám*). Zemindarry.	......	$15\frac{5}{8}$	11,536	13,580	
		32. Danta (*Tel.*) Zemindarry.	......	$4\frac{11}{16}$	3,420	2,309	
		33. Tilaury (Tilári, *Tel.*) Zemindarry.	......	$15\frac{3}{4}$	6,832	3,654	
		34. Sowdaum (Saudámu, *Tel.* Savudám) Zemindarry.	......	$2\frac{1}{2}$	1,164	686	

District.	Designation and Head-quarter Station of Revenue Divisional Officers	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Ganjam—(*Continued*).		35. Akkavalasa (*Tel.*) Zemindarry.	......	1	931	278	
		36. Santa Lutchmeepooram (Sánta Lakshmípuramu, *Tel.*) Zemindarry	......	7/16	589	1,192	
		37. Talasamoodram (Talasamudramu, *Tel.*) Zemindarry.	......	1 3/8	862	2,383	
		38. Soosaraum (Susarámu, *Tel.*) Zemindarry.	......	3/4	321	333	
		39. Rajapooram (Rájapuramu, *Tel.*) Zemindarry.	......	3/16	198	76	
		40. Sidibehera Cottoor (Sidibehara Kottúru, *Tel.*) Zemindarry.	......	1/4	119	102	
		41. Zonnapaud (Dzonnapádu, *Tel.*) Zemindarry.	......	5/16	72	92	
		42. Moolagam (Múlagamu, *Tel.*) Zemindarry.	......	1 9/16	737	571	
		43. Parlakimedy (Parlákimedi,* *Tel.*) Zemindarry.	Parlakimedy (Parlákimedi,* *Tel.*), Rupees 100.	639	240,980	87,825	
		44. Parlakimedy (Parlákimedi,* *Tel.*) Maliah Tracts.	......	354	39,152	...	The revenue is included in that of Parlakimedy Zemindarry.
			Total ...	1,769 25/48	612,635	4,59,662	
	Senior Assistant Collector, Berhampore* (Brahmapuramu, *Tel.*)	1. Berhampore* (Brahmapuramu, *Tel.*), Rupees 200.	Berhampore* (Brahmapuramu, *Tel.*), Rupees 70. *Mag.* Ganjam * (Ganjámu, *Tel.*), Rupees 70. Ichapore (Iççápuramu, *Tel.* Ichápur*), Rupees 100. Poorooshottapore (Purushóttapuramu, *Tel.* Purushottapur*), Rupees 100.	521	271,447	3,42,226	
		2. Atagadah (Atogodo, *Oor.* Átagadá*) consists of Colady (Koladi, *Tel.*) and Bondacundy (Bondakhandi, *Tel.*) Mittahs Zemindarry.	......	265	58,372	59,929	The Survey area is that of the whole Zemindarry.
		3. Pedda Kimedy (Pedda Kimedi,* *Tel.*) Zemindarry.	......	195	48,275	23,323	
		4. Cheekaty (Chíkati,* *Tel.*) Zemindarry.	......	109	45,636	33,913	
		5. Soorangy (Surangi,* *Tel.*) Zemindarry.	......	75	15,242	3,545	
		6. Jarada (Dzarada, *Tel.*) Zemindarry.		38	6,884	2,025	
		7. Jalantra * (*Tel.*) Zemindarry.		101	22,784	7,384	
		8. Barwah (Báruva,* *Tel.*) Zemindarry.		8	4,653	7,800	
		9. Pettah (Péta, *Tel.*), Zemindarry.	Sompett (Sómpéta, *Tel.* Sómpet,*), Rupees 70.	...	4,171	...	
		10. Mundasa (Mandasá, *Tel.* Mandasa*) Zemindarry.		132	35,532	14,035	
		11. Boodaurasinghy (Budárashingi, *Tel.*) Zemindarry.		22	4,031	525	
		12. Pedda Kimedy (Pedda Kimedi,* *Tel.*), Soorangy (Surangi,* *Tel.*), Boodaurasinghy (Budárashingi, *Tel.*), Jarada (Dzarada, *Tel.*), Jalantra * (*Tel.*), and Mundasa (Mandasá, *Tel.* Mandasa*) Maliahs.	Ramagherry (Rámagiri, *Tel.*), Rupees 200.	457	35,460	...	The revenue is included in that of the Zemindarries.
			Total ...	1,923	552,487	4,94,705	

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1	2	3	4	5	6	7	8
				ACS.		RS.	
Ganjam—(*Continued*).	General Deputy Collectors, Russellcondah (Rasúlukonda, Russellkonda,* *Tel.*).	1. Goomsoor (Ghumsará, *Tel.* Goomsur*), Rupees 150.	Sooradah (Suradá,* *Tel.*), Rupees 100.	* 1,121	174,013	1,99,909	*This includes the area of Pondakholl Mittah.
		2. Atagadah (Atogodo, *Oor.* Átagadá*), Mittah Zemindarry.	......	†	42,531	...	† The area is included in the Zemindarry given in the Senior Assistant's Division.
		3. Dhauracote (Dhárákóta, *Tel.* Dhárákót*) Zemindarry.	......	125	24,347	25,025	
		4. Shergadah (Shérugadá, *Tel.* Sérgadá*) Zemindarry.	......	24	11,562	5,822	
		5. Chinna Kimedy (Chinna Kimedi,* *Tel.*) or Pertaubgherry (Pratápagiri, *Tel.*) Zemindarry.	......	189	35,954	20,827	
		6. Aska* (Ashiká, *Tel.*) Zemindarry.	Aska* (Ashiká, *Tel.*), Rupees 100.	21 (for Nos. 6–8)	7,928	4,849	
		7. Devabhoomy (Dévabhúmi,* *Tel.*) Zemindarry.	......		6,037	5,188	
		8. Coorla (Kurla,* *Tel.*) Zemindarry.	......		4,189	5,428	
		9. Bodagooda (Bodaguda, *Tel.*) Zemindarry.	......	141	14,670	4,230	
			Total ...	1,621	321,231	2,71,278	
	Special Assistant Agent, Russellcondah (Rasúlukonda, *Tel.* Russellkonda*) in the low country, and Balligooda (Balliguda,* *Tel.*) in the Maliahs.	1. Chocapaud (Chokapádu, *Tel.*).	......	98	7,377	...	The revenue of Bodagooda Maliahs is included in that shown for Bodagooda Zemindarry.
		2. Bodagooda (Bodaguda, *Tel.*) Maliahs.	......	309	15,341	...	
		3. Goomsoor (Ghumsará, *Tel.* Goomsur*) Maliahs.	Oodayagherry (Udayagiri,* *Tel.*), Rupees 200.	322	55,154	...	
		4. Chinna Kimedy (Chinna Kimedi,* *Tel.*) Maliahs inclusive of Cuttingia (Kattingiyá, *Tel.*) Daringabady (Daringabadi, *Tel.*), Chundragherry (Chandragiri, *Tel.*), Ramagherry (Rámagiri, *Tel.*), Biricote (Birikóta, *Tel.*), Chundiputty (Chandipatti, *Tel.*), and Ryepore (Ráipúr, Raipur*).	Balligooda (Balliguda*, *Tel.*), Rupees 250. Ramagherry (Rámagiri, *Tel.*), Rupees 200.	1,975	101,178	50	The revenue of Chocapaud Khandam is included in that given for Goomsoor talook. The revenue of Rupees 50 relates to Cuttingia. No revenue for Chinna Kimedy Maliahs.
			Total ...	2,704	179,050	50	
			Grand Total ...	$8,326\frac{25}{48}$	1,749,604	12,50,843	
Godavery.	Collector, Cocanada* (Kákináda, *Tel.*).	1. Peddapore (Peddápuramu, *Tel.* Peddápuram*), Rupees 150.	Prodipadoo (Prodipadu, *Tel.*) or Yeleshwaram (Yéléshvaramu, *Tel.*), Rupees 70.	552	124,314	2,33,003	
		2. Pittapore (Pit'hápuramu, *Tel.* Pithápuram*) Zemindarry.	Pittapore (Pit'hápuramu, *Tel.* Pithápuram*), Rupees 100.	203	68,161	2,78,689	
		3. Cocanada* (Kákináda, *Tel.*) Zemindarry.	Cocanada* (Kákináda, *Tel.*) Division, Rupees 100. Cocanada* (Kákináda, *Tel.*) Town Rupees 70. *Mag.*	190	101,075	42,084	
		4. Toony (Tuni,* *Tel.*) Zemindarry.	Toony (Tuni,* *Tel.*), Rupees 100.	320	66,544	43,753	
			Total ...	1,262	360,094	5,97,529	
	Sub-Collector, Rajahmundry* (Rájamahéndravaramu, *Tel.*).	1. Rajahmundry* (Rájamahéndravaramu, *Tel.*), Rupees 175.	Cottapully (Kótipalli, *Tel.* Kottapalle*) or Gokaveram (Gókavaramu, *Tel.*) or Raghoodevapooram (Raghudévapuramu, *Tel.*), Rupees 100.	1,301	145,952	1,53,765	
		2. Amalapooram (Amalápuramu, *Tel.* Amalápuram*), Rupees 200.	Cottapettah (Kottapéta, *Tel.*), Rupees 70.	506	227,157	5,94,336	
		3. Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram*), Rupees 250.	Alamore (Álamúru, *Tel.*) or Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram*), Rupees 70.	400	220,780	8,65,814	
			Total ...	2,207	593,889	16,13,915	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Godavery—(*Continued*).	Head Assistant Collector, Ellore* (Ellúru, *Tel.*).	1. Ellore* (Ellúru, *Tel.*), Rupees 175.	Chintalapoody (Chintalapúdi, *Tel.*), Rupees 70.	729	149,308	2,48,659	
		2. Yernagoodem (Yernagúdemu, *Tel.* Yernagúdem*), Rupees 150.	Polaveram (Pólavaramu, *Tel.*), Rupees 100.	1,107	159,364	2,01,914	
		3. Tanookoo (Tanuku,* *Tel.*), Rupees 200.	Pentapaud (Pentapádu, *Tel.*), Rupees 70.	371	188,306	7,03,744	
			Total ...	2,207	496,978	11,54,317	
	General Deputy Collector, Narsapore (Narasápuramu, *Tel.* Narsápur*).	1. Narsapore (Narasápuramu, *Tel.* Narsápur*), Rupees 225.	Shivacode (Shivakódu, *Tel.*), Rupees 70.	·437	200,153	6,16,630	
		2. Bheemavaram (Bhímavaramu, *Tel.* Bhímavaram*), Rupees 175.	......	321	108,599	4,41,266	
			Total ...	758	308,752	10,57,896	
	Special Assistant Agent, Coonavaram (Kúnavaramu, *Tel.*).	1. Bhadrachellam (Bhadráchalamu, *Tel.* Bhadráchalam*) Zemindarry Talook.	......	911	35,656	20,628	
			Grand Total ...	7,345	1,795,369	44,44,285	
Kistna.	Collector, Masulipatam* (Machilípatnamu, *Tel.*).	1. Goodivauda (Gudiváda* *Tel.*), Rupees 200.	Keicalore (Kaikalúru, *Tel.*), Rupees 70.	596	99,233	4,86,997	
		2. Bunder (Bandaru, *Tel.* Bandar*), Rupees 175.	Avanigadda, Rupees 70 ... Bunder (Bandaru, *Tel.* Bandar*) Town and Fort, Rupees 70. *Mag.*	778	175,482	2,69,854	
			Total ...	1,374	274,715	7,56,851	
	Sub-Collector, Goontoor (Guntúru, *Tel.* Guntúr*).	1. Baupatla (Bápatla,* *Tel.*), Rupees 225.	Ponnoor (Ponnúru, *Tel.*), Rupees 70.	679	151,736	5,91,131	
		2. Goontoor (Guntúru, *Tel.* Guntúr*), Rupees 225.	Goontoor (Guntúru, *Tel.* Guntúr*), Rupees 70. *Mag.* Mungalagherry (Mangalagiri,* *Tel.*), Rupees 70.	500	136,083	4,13,340	
		3. Sattenapully (Sattenapalle,* *Tel.*), Rupees 175.	......	714	110,290	3,71,586	
		4. Repully (Répalle,* *Tel.*), Rupees 250.	Tenally (Tenáli, *Tel.*), Rupees 70.	644	184,340	7,35,830	
			Total ...	2,537	582,449	21,11,887	
	Head Assistant Collector, Bezwada (Bedzaváda, *Tel.* Bezváda*).	1. Nundigauma (Nandigáma,* *Tel.*), Rupees 150.	Juggayapett (Jaggayyapéta, *Tel.* Jaggayapet*), Rupees 70.	679	107,288	1,87,764	
		2. Bezwada (Bedzaváda, *Tel.* Bezváda*), Rupees 150.	......	428	82,895	1,56,494	
		1. Noozveed (Nújivídu, *Tel.* Núzvíd*) Zemindarry.	Noozveed (Nújivídu, *Tel.* Núzvíd*), Rupees 100.	694	125,165	1,76,424	
		2. Vissanapett (Vissannapéta, *Tel.*) Zemindarry.	Vissanapett (Vissannapéta, *Tel.*), Rupees 100.	324	54,401	20,916	
			Total ...	2,124	369,749	5,41,589	
	General Deputy Collector, Vinoocondah (Vinukonda,* *Tel.*).	1. Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet*), Rupees 200.	......	712	128,791	3,36,424	
		2. Pulnaud (Pálnádu, *Tel.* Palnád*), Rupees 200.	Toomaracote (Tumarakóta, *Tel.*), Rupees 70.	1,057	125,799	3,27,814	
		3. Vinoocondah (Vinukonda,* *Tel.*), Rupees 150.	......	666	66,977	1,29,707	
			Total ...	2,435 ...	321,567 ...	7,93,945 5,749	
			Grand Total ...	8,471	1,548,480	42,10,030	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Kurnool.	Collector, Kurnool* (Karnúlu, *Tel.*).	1. Nundicotcore (Nandikótukúru, *Tel.* Nandikótkur*), Rupees 175.	Atmacore (Átmakúru, *Tel.*), Rupees 70.	1,323	72,741	1,83,295	
	Head Assistant Collector, Nundiaul (Nandyála, *Tel.* Nandyál*).	1. Nundiaul (Nandyála, *Tel.* Nandyál*), Rupees 200.	Callwa (Kálava, *Tel.*), Rupees 70.	894	78,282	1,87,411	
		2. Sirwail (Chiruvella, *Tel.* Sirvel*), Rupees 150.	......	623	57,197	1,51,163	
			Total ...	1,517	135,479	3,38,574	
	General Deputy Collector, Cumbum* (Kambhamu, *Tel.*).	1. Cumbum* (Kambhamu, *Tel.*), Rupees 150.	......	1,044	109,851	1,37,313	
		2. Marcapore (Márkápuramu, *Tel.* Márkápur*), Rupees 150.	......	1,110	84,048	76,798	
			Total ...	2,154	193,899	2,14,111	
	General Deputy Collector, Pyaupaly (Pyápali,* *Tel.*).	1. Putticondah (Pattikonda,* *Tel.*) Rupees 175.	Pyaupaly (Pyápali,* *Tel.*), Rupees 70.	1,134	105,438	1,80,600	
		2. Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla*), Rupees 225.	Owk* (Auku, *Tel.*), Rupees 70.	571	76,296	2,31,840	
			Total ...	1,705	181,734	4,12,440	
	Assistant Collector, Kurnool* (Karnúlu, *Tel.*).	1. Ramalcottah (Rámallakóta, *Tel.* Rámallakót*), Rupees 200.	Kurnool* (Karnúlu, *Tel.*), Rupees 70.	834	94,698	1,45,217	
			Grand Total ...	7,533	678,551	12,93,637	Excludes Bunganapully.
Madras.	Collector, Madras* (Shennappattanam, *Tam.*).	1. Madras* (Shennappattanam, *Tam.*), Rupees 150.	......	29	405,848	76,801	
Madura.	Collector, Madura* (Mathurai, *Tam.*).	1. Periyacoolam (Periyakkulam, *Tam.* Periyakulam*), Rupees 150.	Chinnammanore (Shinnammanúr, *Tam.* Chinnammanúr*), Rupees 70.	1,169	232,123	2,50,534	
	Sub-Collector, Dindigul* (Tindukkal, *Tam.*).	1. Dindigul* (Tindukkal, *Tam.*), Rupees 200.	Nilacottah (Nilakkóttai, *Tam.*), Rupees 70. Vedasundoor (Védasandúr, *Tam.*), Rupees 70.	1,071	304,783	3,51,951	
		2. Pulney (Pazhani, *Tam.* Palni*), Rupees 150.	Kodaykarnal (Kodikkánal, *Tam.* Kodaikánal*) Hills, Rupees 100.	910	171,515	2,32,734	
			Total ...	1,981	476,298	5,84,685	
	Head Assistant Collector, Ramnaud (Rámanáthappuram, *Tam.* Ramnad*).	1. Ramnaud (Rámanáthappuram, *Tam.* Ramnad*) Zemindarry.	Tirooshooly (Tiruççuzhi, *Tam.* Tirushuli*), Rupees 100. Moothoocoolatore (Muthukkulattúr, *Tam.* Mutukulatúr*), Rupees 70. Ramnaud (Rámanáthappuram, *Tam* Ramnad*), Rupees 100. Trivathauny (Tiruvádánai, *Tam.*), Rupees 70.	2,112	476,268	3,40,279	
		2. Shivagunga (Shivakkangai, *Tam.* Sivaganga*) Zemindarry.	Shivagunga (Shivakkangai, *Tam.* Sivaganga*), Rupees 100. Tripatore (Tiruppattúr, *Tam.*), Rupees 100.	1,551	432,428	2,89,248	
			Total ...	3,663	908,696	6,29,528	
	Assistant Collector, Madura* (Mathurai, *Tam.*).	1. Mailoor (Mélúr, *Tam.* Melúr*), Rupees 175.	......	628	132,537	2,25,120	
	General Deputy Collector, Madura* (Mathurai, *Tam.*).	1. Madura* (Mathurai, *Tam.*), Rupees 225.	Madura* (Mathurai, *Tam.*), Rupees 100.	335	215,333	2,51,401	
		2. Tiroomungalam (Tirumangalam,* *Tam.*), Rupees 200.	Oosilamputty (Usilambatti, *Tam.*), Rupees 70.	625	203,693	3,37,000	
			Total ...	960	419,026	5,88,401	
			Grand Total ...	8,401	2,168,680	22,78,267	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Malabar.	Collector, Calicut* (Kozhikkóta, *Mal.*).	1. Calicut* (Kozhikkóta, *Mal.*), Rupees 175.	Calicut* (Kozhikkóta, *Mal.*), Rupees 70.	339	205,962	1,31,635	
		2. Cochin* (Koççi, *Mal.*) ...	Anjengo* (Anchinnal, *Mal.*), Rupees 70. *Mag.* Tungacherry (Tankaççéri, *Mal.* Tankachéri*), Rupees 70. *Mag.*	2	21,360	17,147	
			Total ...	341	227,322	1,48,782	
	Sub-Collector, Tellicherry* (Talashsheri, *Mal.*).	1. Chiracal (Chirakkal, *Mal.* Chirakal*), Rupees 175.	Cannanore* (Kannúra, *Mal.*), Rupees 100. Taliparamba* (Talipparamba, *Mal.*), Rupees 70.	648	272,669	2,18,382	
		2. Cottayam (Kóttayam,* *Mal.*), Rupees 175.	Cootaparamba (Kúttaparamba,* *Mal.*), Rupees 70.	462	165,775	1,03,722	
		3. Cooroombranaud (Kurumbranátu, *Mal.* Kurumbranád*), Rupees 200.	Quilandy (Koyilándi, *Mal.* Quilandi*), Rupees 70.	538	261,024	2,12,597	
			Total ...	1,648	699,468	5,34,701	
	Head Assistant Collector, Palghaut (Pálakkátu, *Mal.* Pálghat*).	1. Palghaut (Pálakkátu, *Mal.* Pálghat*), Rupees 200.	Alatore (Álattúra, *Mal.* Álatúr*), Rupees 70.	613	342,454	2,82,061	
	Special Assistant Collector, Malapooram (Malappuram, *Mal.* Malapuram*).	1. Yernaud (Éranátu, *Mal.* Ernád*), Rupees 200.	Tiroorangaudy (Tirúrannáti, *Mal.* Tirurangádi*), Rupees 70.	811	296,143	1,99,726	
		2. Valavanaud (Valluvanátu, *Mal.* Walawanád*).	Cherpalcherry (Cherppullashshéri, *Mal.* Cherpalcheri*), Rupees 70.	963	308,102	2,42,592	
			Total ...	1,774	604,245	4,42,318	
	General Deputy Collector, Ponnany (Ponnáni, *Mal.* Ponáni*)	1. Ponnany (Ponnáni, *Mal.* Ponáni*), Rupees 225.	Chowghaut (Chávakkátu, *Mal.* Chávakád*), Rupees 70. Vetatapoodiyangaudy (Vettattaputiyannáti, *Mal.* Vetatapudiyangádi*), Rupees 70.	390	392,654	3,12,464	
	General Deputy Collector, Manantoddy* (Mánantóti, *Mal.*).	1. Wynaud (Vayanátu, *Mal.* Wynaad*), Rupees 200.	Vythery (Vaittiri, *Mal.* Vayitri*), Rupees 125.	999	88,091	1,03,025	
			Grand Total ...	5,765	2,354,234	18,23,351	
Nellore.	Collector, Nellore* (Nellúru, *Tel.*).	1. Nellore* (Nellúru, *Tel.*), Rupees 225.	Alloor (Allúru, *Tel.* Allúr*), Rupees 70. Nellore* (Nellúru, *Tel.*), Rupees 70. *Mag.*	638	163,740	5,23,988	
		2. Goodoor (Gúdúru, *Tel.* Gúdúr*), Rupees 200.	Kotah, Rupees 70 ... Poloor (Pólúru, *Tel.* Pólúr*), Rupees 100.	910	125,453	3,20,356	
			Total ...	1,548	289,193	8,44,344	
	Sub-Collector, Ongole* (Vangólu, *Tel.*).	1. Ongole* (Vangólu, *Tel.*), Rupees 200.	Addanky (Addanki,* *Tel.*), Rupees 70. Darshy (Darishi, *Tel.* Darsi*), Rupees 100. Podily (Podile, *Tel.* Podili*), Rupees 100.	797	188,593	3,48,224	
		2. Cundoocore (Kandukúru, *Tel.* Kandukúr*), Rupees 175.	......	787	126,757	2,73,094	
		3. Canigherry (Kanigiri,* *Tel.*), Rupees 150.	......	1,014	108,761	49,589	
		4. Darshy (Darishi, *Tel.* Darsi*) Zemindarry.	......	616	68,164	...	The revenue of Darshy and Podily is included under Vencatagherry Estate.
		5. Podily (Podile, *Tel.* Podili*) Zemindarry.	......	564	55,592	...	
			Total ...	3,778	547,867	6,70,907	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Nellore—(*Continued*).	Head Assistant Collector, Nellore* (Nellúru, *Tel.*).	1. Cauvaly (Kávali,* *Tel.*), Rupees 175.	......	548	72,913	1,65,811	
		2. Oodayagherry (Udayagiri, *Tel.*), Rupees 150.	......	850	86,326	65,243	
		3. Atmacore (Átmakúru, *Tel.* Atmakúr*), Rupees 175.	......	638	87,752	2,20,622	
			Total ...	2,036	246,991	4,51,676	
	General Deputy Collector, Naidoopett (Náyudupéta, *Tel.* Náyudupet*).	1. Raupore (Rápúru, *Tel.* Rápúr*), Rupees 150.	Vencatagherry (Venkatagiri,* *Tel.*), Rupees 100.	596	49,774	11,935	
		2. Vencatagherry (Venkatagiri,* *Tel.*) Zemindarry.	......	426	41,915	...	
		3. Poloor (Pólúru, *Tel.* Pólúr*) Zemindarry.	......	355	44,496	3,74,347	
			Total ...	1,377	136,185	3,86,282	
			Grand Total ...	8,739	1,220,236	23,53,209	
Neilgherries.	Collector, Ootacamund * (Ottagaimandu, *Tam.*).	1. Todanaud (Tódanádu, *Tam.* Tódanád*) Tract.	Ootacamund* (Ottagaimandu, *Tam.*), Rupees 100.	386	26,824	40,376 (for 1–4)	
		2. Coondah (Kundai, *Tam.* Kundahs*) Tract.	......	101	1,411		
		3. Merkoonaud (Mérkkunádu, *Tam.* Merkunád*) Tract.	......	93	12,740		
		4. Paranginaud (Paranginádu, *Tam.* Paranginád*) Tract.	Coonoor* (Kunnúr, *Tam.*), Rupees 100.	137	24,619		
			Total...	717	65,594	40,376	
	Head Assistant Collector, Devalah (Déväla, *Mal.* Devála*).	1. South-East Wynaud (Vayanátu, *Mal.* Wynaad*).	Goodalore (Kúdalúr, *Tam.* Gúdalúr*), Rupees 150.	240	25,440	24,829	
			Total ...	957	91,034	65,205	
Salem.	Collector, Salem* (Shélam, *Tam.*).	1. Salem* (Shélam, *Tam.*), Rupees 250.	Razipore (Rásippuram, *Tam.*), Rupees 70. Salem* (Shélam, *Tam.*), Rupees 100. Shevaroy Hills* (Shérvaráyanmalai, *Tam.*), Rupees 150. Taramungalam (Táramangalam, *Tam.*), Rupees 70.	1,071	327,178	4,04,414	
		2. Ahtoor (Áttúr, *Tam.* Atúr*), Rupees 200.	......	839	158,554	2,06,107	
			Total ...	1,910	485,732	6,10,721	
	Sub-Collector, Oossoor (Hosúru, *Can.* Hosúr*).	1. Oossoor (Hosúru, *Can.* Hosúr*), Rupees 200.	Dencanicottah (Tenganikkóttai, *Tam.* Denkanikóta*), Rupees 70.	1,221	131,770	1,59,518	
		2. Dharmapoory (Tarumappuri, *Tam.* Dharmapuri*), Rupees 175.	Pennagaram (Pennágaram, *Tam.*), Rupees 70.	938	135,826	1,57,615	
		3. Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri*), Rupees 150.	......	657	120,925	1,49,578	
			Total ...	2,861	388,256	4,67,011	
	Head Assistant Collector, Tripatore (Tiruppattúr, *Tam.* Tirupatúr*).	1. Tripatore (Tiruppattúr, *Tam.* Tirupatúr*), Rupees 200.	Vaniyambaudy (Vániyambádi,* *Tam.*), Rupees 70.	742	169,977	1,62,784	
		2. Ootancaray (Úttangarai, *Tam.* Úttankarai*), Rupees 150.	Haroor (Arúr, *Tam.*), Rupees 70.	910	109,456	1,05,788	
			Total ...	1,652	279,433	2,68,572	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Salem—(*Contd.*).	General Deputy Collector, Namcull (Námakkal, *Tam.* Námakal*).	1. Namcull (Námakkal, *Tam.* Námakal*), Rupees 225.	Paramatty (Paramatti, *Tam.*), Rupees 70.	714	254,577	3,43,905	
		2. Trichengode (Tiruççengódu, *Tam.* Tiruchengód*), Rupees 225.	Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug*), Rupees 70.	637	191,328	3,18,071	
			Total ...	1,351	445,905	6,61,976	
			Grand Total ...	7,729	1,599,595	20,08,080	
Tanjore.	Collector, Tanjore* (Tañjávúr, *Tam.*).	......	......	...	...	...	
	Sub-Collector, Combaconam (Kumbagónam, *Tam.* Kumbakónam*).	1. Combaconam (Kumbagónam, *Tam.* Kumbakónam), Rupees 250.	Combaconam (Kumbagónam, *Tam.* Kumbakónam), Rupees 100. Tiroovadamaroothore (Tiruvidaimaruthúr, *Tam.* Tiruvadamarudúr*), Rupees 70.	314	370,373	7,96,783	
		2. Mayavaram (Máyavaram,* *Tam.*), Rupees 225.	Tranquebar* (Tarangambádi, *Tam.*), Rupees 70.	332	238,994	5,82,476	
		3. Shiyally (Siyyázhi, *Tam.* Shiyáli*), Rupees 150.	......	159	114,041	2,76,235	
			Total ...	805	7,237,587	9,65,514	
	Head Assistant Collector, Negapatam* (Nágappattanam, *Tam.*).	1. Negapatam* (Nágappattanam, *Tam.*),Rupees 250.	Negapatam* (Nágappattanam, *Tam.*), Rupees 100. Tiroovalore (Tiruválúr,* *Tam.*), Rupees 70.	239	216,867	4,04,301	
		2. Nunnilam (Nannilam,* *Tam.*), Rupees 250.	Coodavausal (Kudavásal, *Tam.*), Rupees 70.	279	220,202	7,48,689	
			Total ...	518	437,069	11,52,990	
	General Deputy Collector, Munnargoody (Mannárkkudi, *Tam.* Mannárgudi*).	1. Munnargoody (Mannárkkudi, *Tam.* Mannárgudi*), Rupees 200.	Needamungalam (Nídámangalam,* *Tam.*), Rupees 70.	284	181,650	4,09,210	
		2. Tritrapoondy (Tiruttaruppúndi, *Tam.* Tiruturaipúndi*), Rupees 225.	Vedaranyam (Véthâraniyam, *Tam.*), Rupees 70.	466	168,103	3,29,404	
			Total ...	750	3,49,753	7,38,614	
	General Deputy Collector, Tanjore* (Tañjávúr, *Tam.*).	1. Tanjore* (Tañjávúr, *Tam.*), Rupees 250.	Tanjore* (Tañjávúr, *Tam.*), Rupees 100. Trivaudy (Tiruváthi, *Tam.* Tiruvádi*), Rupees 70. Vullam (Vallam,* *Tam.*), Rupees 70.	672	375,086	6,11,853	
	Assistant Collector, Tanjore* (Tañjávúr, *Tam.*).	2. Puttoocottah (Pattukkóttai, *Tam.* Patukóta*), Rupees 175.	Arantaungy (Arandángi, *Tam.* Arantángi*), Rupees 70.	909	244,717	1,83,167	
			Grand Total ...	3,654	2,130,383	43,42,118	
Tinnevelly.	Sub-Collector, Tuticorin * (Túttukkudi, *Tam.*).	1. Ottapidauram (Óttappidáram, *Tam.* Otapidáram*), Rupees 150.	Tuticorin* (Túttukudi, *Tam.*), Rupees 100. Vilauticoolam (Viláttikkulam, *Tam.* Vilátikulam*), Rupees 70.	1,075	269,797	2,94,806	
		2. Tencaray (Tengarai, *Tam.* Tenkarai*), Rupees 250.	Coolashekharaputnam (Kulaségarappattanam, *Tam.* Kulasekharapatnam*), Rupees 100. Shreeveicoontam (Shirívaikkundam, *Tam.* Srívaikuntham*), Rupees 70. *Mag.*	553	283,110	5,05,245	
			Total ...	1,628	552,907	8,00,051	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Tinnevelly—(*Continued*).	Head Assistant Collector, Shermadevy (Shérmáthévi, *Tam.* Shermádevi*).	1. Nangoonairy (Nángúnéri, *Tam.* Nángunéri*), Rupees 200.	Radhaupooram (Ráthápuram, *Tam.* Rádhápuram*), Rupees 70.	665	174,347	2,94,511	
		2. Tencausy (Tengási, *Tam.*Tenkási*), Rupees 175.	......	361	140,405	2,25,097	
		3. Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram*), Rupees 225.	......	569	165,152	3,97,495	
			Total ...	1,595	479,904	9,17,103	
	General Deputy Collector, Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívillipu-tur*).	1. Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur*), Rupees 200.	Watrap (Varttiráyiruppu, *Tam.* Vartiráyiruppu*), Rupees 70.	571	163,608	3,22,673	
		2. Shautore (Sháttúr, *Tam.* Sátúr*), Rupees 150.	Viroothooputty (Virnthuppatti, *Tam.* Virudupati*), Rupees 70.	548	150,886	2,20,069	
		3. Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil*), Rupees 200.	......	712	181,064	2,44,215	
			Total ...	1,831	495,558	7,86,957	
	Assistant Collector, Tinnevelly* (Tirunelvéli, *Tam.*).	Tinnevelly (Tirunelvéli, *Tam.*), Rupees 225.	Palamcottah* (Pálaiyangóttai, *Tam.*), Rupees 100.	327	171,378	2,94,105	
			Grand Total ...	5,381	1,699,747	27,98,216	
Trichinopoly.	Assistant Collector, Trichinopoly* (Tiruççináppalli, *Tam.*).	1. Trichinopoly* (Tiruççináppalli, *Tam.*), Rupees 250.	Laulgoody (Lálukkudi, *Tam.* Lálgudi*), Rupees 100. Trichinopoly* (Tiruççináppalli, *Tam.*), Rupees 100. *Mag.*	536	355,918	4,37,546	
	Head Assistant Collector, Moosiry (Musiri,* *Tam.*).	1. Moosiry (Musiri,* *Tam.*), Rupees 225.	Toorayore (Turaiyúr,* *Tam.*), Rupees 100.	763	257,668	3,46,713	
		2. Coolitalay (Kulittalai, *Tam.* Kulitalai*), Rupees 200.	Manapauray (Manappárai, *Tam.* Manapárai*), Rupees 70.	909	201,990	2,26,452	
			Total ...	1,672	459,658	5,73,165	
	General Deputy Collector, Ariyaloor (Ariyalúr,* *Tam.*).	1. Perambalore (Perambalúr,* *Tam.*), Rupees 175.	......	673	172,281	2,64,837	
		2. Oodayarpolliem (Udaiyárppálaiyam, *Tam.* Udayárpálaiyam*), Rupees 150.	Keelpaloovore (Kízhappaluvúr, *Tam.* Kílpaluvúr*), Rupees 70.	761	247,176	2,51,130	
			Total ...	1,434	419,457	5,94,967	
			Grand Total ...	3,312	1,250,331	52,56,781	
Vizagapatam.	Collector, Vizagapatam* (Vishákhapatnamu, *Tel.*).	1. Vizagapatam* (Vishákhapatnamu, *Tel.*) Zemindarry.	Vizagapatam* (Vishákhapatnamu, *Tel.*), Rupees 100.	142	85,437	...	
		2. Srungavarapoocote (Shringavarapukóta, *Tel.*) Zemindarry Hill Tracts of Srungavarapoocote (Shringavarapukóta, *Tel.*).	Srungavarapoocote (Shringavarapukóta, *Tel.*), Rupees 100.	102 216	126,601 3,182	... ...	
			Total ...	460	215,229	...	
	Principal Assistant Collector, Narsapatam (Narasapatnamu, *Tel.* Narsapatnam*).	1. Golcondah (Golugonda, *Tel.* Golgonda*), Rupees 150.	......	161	97,748	89,770	
		2. Sarwasiddhy (Sarvasiddhi,* *Tel.*), Rupees 150.	......	347	131,754	1,36,208	

District.	Designation and Head-quarter Station of Revenue Divisional Officers.	Tahsildarries. The name of the Cusbah or Head-quarter Station gives the name to the charge. The figures show the monthly Pay of the Tahsildars. When Zemindarry Tracts are not included in the limits of any talook, these also are shown. A few principal Zemindarries or Mittahs are mentioned, although included within a talook. The entries opposite the Neilgherries, and in the case of the Ganjam Maliahs, are of territorial tracts.	Deputy Tahsildarries and Sub-Magistracies set opposite the talooks in which they are included, or with which they are administratively connected. *Mag.* = Sub-Magistracies only without revenue functions. The figures show the monthly Pay of the Appointments.	Area in Square Miles of the Talooks, Zemindarries, and Total Districts.	Population of ditto.	Land Revenue Demand of ditto, being the Average of five Fuslies ending with Fusly 1292 (30th June 1883).	Remarks.
1	2	3	4	5	6	7	8
				ACS.		RS.	
Vizagapatam—(*Continued*).	Principal Assistant Collector, Narsapatam (Narasapatnamu, *Tel.* Narsapatnam*)—(*Continued*).	3. Veeravilly (Víravilli, *Tel.*) Zemindarry.	Veeravilly (Víravilli, *Tel.*), Rupees 70.	504	176,052	...	Includes Madgole.
		4. Ankapully (Anakápalle,* *Tel.*) Zemindarry.	Ankapully (Anakápalle,* *Tel.*), Rupees 70.	313	131,637	...	
		Hill Tracts Veeravilly (Víravilli, *Tel.*) and Golcondah (Golugonda, *Tel.* Golgonda*).	......	1,452	26,059	...	
			Total ...	2,777	563,250	2,25,978	
	Senior Assistant Collector, Parvatipore (Párvatípuramu, *Tel.* Párvatipur*).	1. Bobbily (Bobbili,* *Tel.*) Zemindarry.	Bobbily (Bobbili,* *Tel.*), Rupees 100.	227	139,974	...	
		2. Saulore (Sálúru, *Tel.* Sálúr*) Zemindarry.	Saulore (Sálúru, *Tel.* Sálúr*), Rupees 100.	64	80,831	...	Includes Punchipenta.
		Agency Tracts of Saulore (Sálúru, *Tel.* Sálúr*).	......	158	3,069	...	
		3. Parvatipore (Párvatípuramu, *Tel.* Párvatipur*) Zemindarry.	Parvatipore (Párvatípuramu, *Tel.* Párvatipur*), Rupees 100.	91	111,049	...	
		Agency Tracts of Parvatipore (Párvatípuramu, *Tel.* Párvatipur*).	......	311	...	...	
		Agency talooks of—					
		4. Goonapore (Gunupuramu, *Tel.*).	Goonapore (Gunupuramu, *Tel.*), Rupees 150.	3,000	37,552	...	
		5. Royagooda (Ráyagudda, *Tel.*).	Royagooda (Ráyagudda, *Tel.*), Rupees 100.		153,649	...	
		6. Bissemcuttack (Bishomokotóko, *Oor.*).	Bissemcuttack (Bishomokotóko, *Oor.*).		68,859	...	Constituted into separate talook in November 1882.
		Rented.	Total ...	3,851	594,983	...	
	General Deputy Collector, Vizianagram* (Vijayanagaramu, *Tel.*).	1. Palcondah (Pálakonda, *Tel.* Pálkonda*).	Palcondah (Pálakonda, *Tel.* Pálkonda*), Rupees 70.	165	200,232	...	
		Agency Tracts of Palcondah (Pálakonda, *Tel.* Pálkonda*).	......	266	9,098	...	This division was newly formed in June 1883.
		2. Cheepoorpully (Chípurupalle,* *Tel.*).	Cheepoorpully (Chípurupalle,* *Tel.*), Rupees 70.	535	138,896	...	
		3. Bimlipatam* (Bhímunipatnamu, *Tel.*).	Bimlipatam* (Bhímunipatnamu, *Tel.*), Rupees 100.	211	106,267	...	
		4. Vizianagram* (Vijayanagaramu, *Tel.*).	Vizianagram* (Vijayanagaramu, *Tel.*), Rupees 100.	267	147,210	...	
		5. Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar*).	Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar*), Rupees 70.	348	116,771	...	
			Total ...	1,792	718,474	...	
	Special Assistant Agent, Coraputt (Kórápatti, *Tel.*).	Agency talooks of—					
		1. Jeypore* (Jayapuramu, *Tel.*) Zemindarry.	Cotepaud (Kótapádu, *Tel.*), Rupees 100.	8,500	116,117	...	
		2. Navarungapore (Navarangapuramu, *Tel.*) Zemindarry.	Navarungapore (Navarangapuramu, *Tel.*), Rupees 100.		93,502	...	
		3. Mulkangherry (Malakangiri, *Tel.*) Zemindarry.	Mulkangherry (Malakangiri, *Tel.*), Rupees 100.		22,558	...	
		4. Coraputt (Kórápatti, *Tel.*) Zemindarry.	Coraputt (Kórápatti, *Tel.*), Rupees 100.		157,171	...	
		5. Pottinghy (Pottángi, *Tel.*) Zemindarry.	Pottinghy (Pottángi, *Tel.*).		...	...	Separated from Coraputt talook in November 1882.
			Total ...	8,500	389,348	...	
			Grand Total ...	17,380	2,481,284	2,25,978	
				...	...	12,09,363	Zemindarry revenue for which talookwar particulars are not known.
			Total ...	17,380	2,481,284	14,35,341	

APPENDIX No. LVI.

REVENUE AND PERCENTAGE PER POPULATION IN SOME OF THE PRINCIPAL COUNTRIES OF THE WORLD, INCLUDING INDIA, ACCORDING TO THE LATEST AVAILABLE INFORMATION.

Countries.	Population.	Revenue. Items.	Amount.		Rate per Head.
			FRANCS.	RS.	
1. France	37,672,048 ...	Direct taxes	421,084,415		
		Domains and forests	55,570,306		
		Indirect taxes—			
		Enrégistrément	574,691,000		
		Stamps	159,415,000		
		Customs	322,481,000		
		Excise, railway and other indirect taxes—	861,597,400		
		Sugar	179,236,000		
		Wine	152,549,000		
		Posts and telegraphs	166,408,000		
		Algeria indirect taxes	21,101,000		
		Tax on personal property ...	50,124,000		
		Repayment by railways	34,900,000		
		Various receipts	104,543,722		
		Total Ordinary Receipts ...	3,103,700,843		
		Special Receipts ...	454,725,326		
		Total ...	3,558,426,169	142,33,70,460	37·7
			POUNDS.		
2. United Kingdom.	35,241,482...	Customs	19,749,000		
		Excise	26,765,000		
		Stamps	11,510,000		
		Land tax	1,040,000		
		House duty	1,785,000		
		Property and income tax	10,265,000		
		Post Office	7,740,000		
		Telegraph service	1,750,000		
		Crown lands	380,000		
		Interest on advances for local works, and on purchase money of Suez canal shares.	1,185,000		
		Miscellaneous	4,380,000		
		Total ...	86,549,000	86,54,90,000	24·5
			LIRE.		
3. Italy	28,459,451...	State property	25,847,045		
		Direct taxes	383,951,027		
		Stamps	58,400,000		
		Registration	55,700,000		
		Succession duties	30,000,000		
		Railway tax	16,411,900		
		Various	24,460,000		
		Indirect taxes	407,599,245		
		State lottery...	72,500,000		
		Fines	2,000		
		Public services	115,623,175		
		Repayments	19,030,852		
		Rents, interests, deposits, &c. ...	94,693,991		
		Miscellaneous	8,828,470		
		Total Ordinary Revenue ...	1,313,047,705		
		Sale of State and Ecclesiastical property, &c.	24,172,005		
		New loans	28,151,705		
		Railway construction	89,233,807		
		Various	7,756,445		
		Total Extraordinary Revenue ...	149,313,962		
		Total ...	1,462,361,667	61,77,44,460	21·7

Countries.	Population.	Revenue. Items.	Revenue. Amount.		Rate per Head.
			FRANCS.	RS.	
4. Belgium	5,585,846...	Land taxes	23,272,900		
		Personal taxes	16,854,000		
		Trade licenses	6,338,000		
		Mines	300,000		
		Customs	22,200,000		
		Succession duties	19,360,000		
		Excise	32,996,500		
		Registration duties and fines ...	23,000,000		
		Stamps	5,800,000		
		Railways	119,300,000		
		Telegraphs	2,880,000		
		Post Office	8,303,400		
		Domains, forests, &c.	2,965,000		
		Various State dues	5,957,000		
		Repayments	3,319,627		
		Other receipts	9,892,500		
		Total ...	302,745,927	12,10,98,370	21·6
			MARK.		
5. Prussia	27,279,111	Ministry of agriculture, domains and forests.	81,089,924		
		Ministry of finance	374,128,888		
		Ministry of public works	612,263,163		
		Ministry of justice	7,319,800		
		Ministry of the interior	4,320,841		
		Ministry of commerce and industry.	321,900		
		Ministry of public worship and instruction.	2,850,042		
		Ministry of foreign affairs ...	8,070		
		Ministry of war	1,755		
		Total ...	1,083,057,883	54,15,28,940	19·8
			PESETAS.		
6. Spain	16,634,345...	Direct taxes	239,295,000		
		Indirect taxes	152,829,000		
		Customs	123,808,000		
		Registration, stamps and monopolies.	251,290,000		
		Revenue from national property ...	13,944,886		
		Treasury receipts	21,210,000		
		Total ...	802,376,886	32,09,50,750	19·2
			DRACHMAI.		
7. Greece	1,679,775	Direct taxes and usufruct	9,375,000		
		Pastures	210,000		
		Cattle, &c., &c.	3,200,000		
		Licenses	1,600,000		
		Farmhouse tax	1,400,000		
		Income of Banks	300,000		
		Indirect taxes—			
		Customs	23,700,000		
		Stamps	6,540,000		
		Miscellaneous receipts ...	635,000		
		Articles of consumption ...	9,440,000		
		Consular duties	650,000		
		State Establishments—			
		Mintage	190,000		
		Post Office	1,200,000		
		Telegraphs	1,220,000		
		Printing Office	7,000		
		Royalties and State domains ...	4,175,447		
		Sale of State property ...	4,040,460		
		Miscellaneous	3,151,703		
		Ecclesiastical revenues	369,000		
		Closed accounts	1,620,000		
		Renewing receipts from closed accounts.	90,000		
		Total ...	73,113,610	2,92,45,440	17·4
			POUNDS.		
8. Portugal ...	4,160,315	Direct taxes	1,387,790		
		Stamp and register duties ...	763,777		
		Indirect taxes and customs ...	3,884,700		
		National domains and miscellaneous receipts.	665,573		
		Repayments and sundries	238,069		
		Total ...	6,939,909	693,99,090	16·6

Countries.	Population.	Revenue. Items.	Amount.		Rate per Head.
			KRONER.	RS.	
9. Denmark ...	1,969,039...	Domains, surplus of	1,132,198		
		Interest of reserve fund and State assets	5,485,303		
		Direct taxes	9,267,900		
		Stamp duty	2,475,009		
		Duty on inheritance and transfer of property.	1,673,000		
		Law fees	2,014,000		
		Customs and excise on distilleries..	27,356,000		
		Surplus on posts and telegraphs ...	105,396		
		Surplus from State salaries ...	820,000		
		Revenue from färoes	61,072		
		Revenue from sinking fund, deposits and pensions.	1,579,161		
		Miscellaneous	1,715,109		
		Total ...	53,684,148	2,98,13,410	15·1
			ROUBLES.		
10. Russia	85,058,415	Direct taxes	137,430,359		
		Indirect taxes	411,744,377		
		Mint, mines, post and telegraphs...	27,750,516		
		State domains	48,688,961		
		Miscellaneous receipts	74,185,963		
		Revenue of Transcaucasia ...	7,772,831		
		Total Ordinary Revenue ...	707,573,007		
		'Recettes d' ordre'	5,974,581		
		Extraordinary receipts	62,957,835		
		Total ...	778,505,423	1,11,21,50,600	13·7
			POUNDS.		
11. Turkey	42,214,350	Tributes, &c.	1,143,720		
		Ceded revenues—			
		Tobacco, salt, stamps, excise, &c.	1,983,416		
		Customs	1,992,800		
		Dimes	5,000,000		
		Verghi (personal tax)	2,250,000		
		Sheep tax and pig tax	1,658,440		
		Military exemption	460,000		
		Posts and telegraphs	220,000		
		Tapon (transfer and registration of property)	200,000		
		Forests	60,700		
		Judicial taxes	100,000		
		Receipts of ministries	802,230		
		Sundry taxes and revenues ...	479,700		
		State properties	52,000		
		Total ...	16,313,006	16,31,30,060	3·8
			POUNDS.		
12. India	198,755,993	Land revenue	21,793,000		
		Opium	9,200,000		
		Salt	6,167,000		
		Stamps	3,427,000		
		Excise	3,623,000		
		Provincial rates	2,688,000		
		Customs	1,255,000		
		Assessed taxes, forest tribute, &c.	2,441,000		
		Post office, telegraph, and mint ...	1,670,000		
		Civil departments	1,402,000		
		Miscellaneous	1,269,000		
		Productive works	10,608,000		
		Non-productive works	865,000		
		Army services	866,000		
		Total ...	67,274,000	67,27,40,000	3·3

APPENDIX No. LVII.

AMOUNT AND INCIDENCE OF LAND REVENUE TAXATION, &c., ACCORDING TO THE LATEST INFORMATION.

Districts.		Amount of payments to Government including charges for water.	Amount of local rates and cesses paid on land.	Total of the two preceding columns.	Amount of rent including local cesses paid by cultivators.	Percentage of agriculturists on total population.	Average incidence of amount of payments specified in column 1 per acre of revenue paying cultivable area.	Average incidence of amount of payments specified in column 1 per acre of revenue paying cultivated area.	Average incidence of local rates and cesses (column 2) per acre of cultivated land.	Average incidence of rent (column 4) paid per cultivated acre.
		1	2	3	4	5	6	7	8	9
		RS.	RS.	RS.	RS.		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Anantapore...	Government ...	8,63,170	1,74,114	10,37,284	10,37,284	44	0 14 4	1 1 5	0 3 6	1 4 11
	Inam	83,891	53,968	1,37,859	2,95,064		0 3 7	0 6 7	0 2 9	0 14 11
	Zemindarry ...	...	...	...	...		...	...	...	...
	Total ...	9,47,061	2,28,082	11,75,143	13,32,348	...	0 11 4	0 15 3	0 3 3	1 3 3
Bellary ...	Government ...	11,47,854	1,95,782	13,43,636	13,43,636	40	0 14 4	1 2 6	0 3 2	1 5 8
	Inam	1,48,512	63,079	2,11,591	4,32,842		0 4 4	0 7 4	0 2 1	0 14 3
	Zemindarry ...	...	...	...	...		...	...	...	...
	Total ...	12,96,366	2,58,861	15,55,227	17,76,478	...	0 11 4	0 15 9	0 2 10	1 3 3
Chingleput ...	Government ...	16,26,446	1,87,137	18,13,583	18,13,583	30	2 12 10	3 10 1	0 6 8	4 0 9
	Inam	1,62,447	40,171	2,02,618	3,85,058		0 13 7	1 10 2	0 5 7	3 5 9
	Zemindarry ...	1,06,245	13,805	1,20,050	3,03,147		0 10 9	1 8 4	0 2 10	3 14 8
	Total ...	18,95,138	2,41,113	21,36,251	25,01,788	...	2 0 8	3 1 2	0 6 0	3 14 6
Coimbatore ...	Government ...	24,38,166	1,71,862	26,10,028	26,10,028	37	1 0 7	1 5 5	0 1 6	1 6 11
	Inam	37,457	21,756	59,213	1,16,106		0 6 0	0 7 7	0 1 9	0 9 2
	Zemindarry ...	27,781	4,644	32,425	84,083		0 5 6	0 6 4	0 1 0	1 2 1
	Total ...	25,03,404	1,98,262	27,01,666	28,10,217	...	0 15 10	1 4 4	0 1 6	1 5 5
Cuddapah ...	Government ...	15,96,787	1,33,853	17,30,640	17,30,640	42	1 5 4	1 8 5	0 2 0	1 10 5
	Inam	2,11,413	80,303	2,91,716	13,29,911		0 6 8	0 8 9	0 2 6	2 9 10
	Zemindarry ...	...	...	...	...		...	...	...	...
	Total ...	18,08,200	* 2,14,156	20,22,356	30,60,551	...	1 1 0	1 4 3	0 2 2	1 15 6
Ganjam ...	Government ...	7,10,945	65,984	7,76,929	7,76,929	32	2 2 2	2 3 4	0 3 3	2 6 7
	Inam	48,734	13,058	61,792	89,414		0 10 2	0 10 8	0 2 3	0 15 2
	Zemindarry ...	4,75,729	1,03,311	5,79,040	18,08,696		0 11 4	0 13 0	0 2 8	2 15 9
	Total ...	12,35,408	1,82,353	14,17,761	26,75,039	...	1 2 3	1 4 2	0 2 10	2 9 11
Godavery ...	Government ...	29,17,069	2,72,123	31,89,192	31,89,192	28	3 4 0	4 11 3	0 7 0	5 2 3
	Inam	7,58,896	1,39,279	8,98,175	13,77,488		1 14 6	2 8 0	0 6 11	4 4 4
	Zemindarry ...	10,22,712	1,21,518	11,44,230	28,68,436		1 7 2	1 15 5	0 3 5	5 2 0
	Total ...	46,98,677	5,32,920	52,31,597	74,35,116	...	2 5 7	3 4 1	0 5 9	4 15 3
Kistna ...	Government ...	35,23,837	4,27,229	39,51,066	39,51,066	30	1 14 11	2 7 6	0 4 10	2 12 4
	Inam	2,75,835	1,75,472	4,51,307	9,65,605		0 7 9	0 11 4	0 6 7	2 4 5
	Zemindarry ...	3,27,868	59,271	3,87,139	14,37,931		0 8 4	0 12 9	0 2 0	3 1 5
	Total ...	41,27,540	6,61,972	47,89,512	63,54,602	...	1 5 10	1 13 8	0 4 7	2 11 11
Kurnool ...	Government ...	10,94,160	1,15,063	12,09,223	12,09,223	32	1 1 11	1 4 9	0 2 2	1 6 11
	Inam	3,78,712	92,728	4,71,440	5,35,133		0 7 0	0 12 4	0 2 8	0 15 4
	Zemindarry ...	...	...	...	...		...	...	...	...
	Total ...	14,72,872	2,07,791	16,80,663	17,44,356	...	0 12 10	1 1 8	0 2 4	1 4 0
Madura ...	Government ...	14,12,072	78,379	14,90,451	14,90,451	41	1 10 6	2 3 0	0 1 11	2 4 11
	Inam	1,30,997	55,696	1,86,693	4,17,307		0 6 10	0 15 10	0 3 9	1 11 11
	Zemindarry ...	8,00,119	99,424	8,99,543	22,04,016		0 10 2	1 0 5	0 1 11	2 10 2
	Total ...	23,43,188	2,33,499	25,76,687	41,11,774	...	0 15 6	1 8 1	0 2 2	2 6 2
Malabar ...	Government ...	17,86,960	3,23,186	21,10,146	21,10,146	24	2 5 1	2 5 1	0 4 7	1 14 4
	Inam	2,552	4,603	7,155	40,019		0 7 1	0 7 1	0 6 9	3 10 10
	Zemindarry ...	5,000	1,477	6,477	24,622		1 15 3	2 9 8	0 12 4	12 13 2
	Total ...	17,94,512	3,29,266	21,23,778	21,74,787	...	2 4 10	2 4 11	0 4 8	1 14 11
Nellore ...	Government ...	18,40,221	2,50,041	20,90,262	20,90,262	32	1 12 0	2 7 1	0 5 4	2 12 5
	Inam	2,60,738	78,251	3,38,989	6,49,689		0 8 3	0 14 11	0 4 0	2 1 7
	Zemindarry ...	3,98,717	47,086	4,45,803	9,52,046		0 6 1	0 12 0	0 1 5	1 12 5
	Total ...	24,99,676	3,75,378	28,75,054	36,91,997	...	0 15 4	1 9 7	0 3 9	2 4 11
Neilgherries.	Government ...	67,959	9,371	77,330	77,330	38	0 11 0	1 0 10	0 2 3	1 3 1
	Inam	...	51	51	...		...	...	0 0 8	...
	Zemindarry ...	...	...	...	...		...	...	...	...
	Total ...	67,959	9,422	77,381	77,330	...	0 11 0	1 0 10	0 2 3	1 2 9

Districts.	Amount of payments to Government including charges for water.	Amount of local rates and cesses paid on land.	Total of the two preceding columns.	Amount of rent including local cesses paid by cultivators.	Percentage of agriculturists on total population.	Average incidence of amount of payments specified in column 1 per acre of revenue paying cultivable area	Average incidence of amount of payments specified in column 1 per acre of revenue paying cultivated area	Average incidence of local rates and cesses (column 2) per acre of cultivated land.	Average incidence of rent (column 4) paid per cultivated acre.
	1	2	3	4	5	6	7	8	9
	RS.	RS.	RS.	RS.		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
North Arcot. Government ...	17,40,331	2,30,465	19,70,796	19,70,796	36	2 10 11	3 2 8	0 6 8	3 9 4
Inam	85,835	38,167	1,24,002	4,82,778		0 9 10	1 1 10	0 5 6	4 5 9
Zemindarry ...	4,97,342	99,341	5,96,683	18,89,329		0 11 10	1 9 7	0 4 5	5 4 11
Total ...	23,23,508	3,67,973	26,91,481	43,42,903	...	1 9 6	2 7 7	0 5 9	4 4 5
Salem ... Government ...	13,75,087	1,10,979	14,86,066	14,86,066	40	1 5 11	1 9 0	0 2 0	1 11 0
Inam	65,487	17,377	82,864	1,71,843		0 10 0	0 12 5	0 2 8	1 11 0
Zemindarry ...	4,52,597	44,358	4,96,955	6,71.768		0 11 1	0 14 10	0 1 5	1 5 6
Total ...	18.93,171	1,72,714	20,65,885	23,29,677	...	1 1 3	1 4 10	0 1 10	1 9 2
South Arcot... Government ...	30,51,800	2,21,049	32,72,849	32,72,849	38	2 6 11	2 12 9	0 3 3	3 0 0
Inam	52,669	21,597	74,266	4,01,826		0 13 3	1 8 4	0 3 10	4 7 9
Zemindarry ...	8,947	1,766	10,713	29,257		0 10 8	1 0 0	0 2 11	3 0 9
Total ...	31,13,416	2,44,412	33,57,828	37,03,932	...	2 5 7	2 11 11	0 3 3	3 1 9
South Canara. Government ...	12,66,119	89,784	13,55,903	13,55,903	40	3 8 5	3 13 1	0 4 4	4 1 4
Inam	...	7,811	7,811	1,34,084		...	...	0 4 0	4 4 5
Zemindarry ...	...	...	...	...		...	...	...	...
Total ...	12,66,119	97,595	13,63,714	14,89,987	...	3 8 5	3 13 1	0 4 4	4 1 7
Tanjore ... Government ...	40,96,789	4,84,412	45,81,201	45,81,201	30	3 13 10	4 4 9	0 8 1	4 12 10
Inam	1,84,431	41,609	2,26,040	8,81,214		0 6 11	0 13 4	0 2 7	3 6 9
Zemindarry ...	32,162	3,007	35,169	68,363		0 3 6	0 11 4	0 1 1	1 8 1
Total ...	43,13,382	5,29,028	48,42,410	55,30,778	...	2 10 4	3 8 7	0 6 9	4 6 5
Tinnevelly ... Government ...	22,60,488	2,54,289	25,14,777	25,14,777	32	1 9 8	2 5 11	0 4 3	2 10 2
Inam	1,40,287	31,686	1,41,973	3,99,141		0 9 7	0 14 9	0 3 3	2 9 7
Zemindarry ...	3,18,343	55,839	3,74,182	9,75,662		0 7 2	0 9 6	0 1 7	1 12 3
Total ...	26,89,118	3,41,814	30,30,932	38,89,580	...	1 2 9	1 10 9	0 3 4	2 5 6
Trichinopoly. Government ...	14,83,506	2,27,722	17,11,228	17,11,228	38	1 7 11	1 13 8	0 4 7	2 2 3
Inam	1,16,536	17,624	1,34,160	2,17,023		0 14 8	1 7 10	0 2 6	1 14 10
Zemindarry ...	53,111	19,317	72,428	1,96,391		0 3 1	0 7 3	0 2 2	1 6 1
Total ...	16,53,153	2,64,663	19,17,816	21,24,642	...	1 2 11	1 10 7	0 4 0	2 0 3
Vizagapatam. Government ...	3,44,386	21,062	3,65,448	3,77,126	45	3 0 11	3 3 6	0 3 2	3 8 5
Inam	56,846	12,405	69,251	1,92,087		1 0 11	1 1 9	0 3 4	3 4 0
Zemindarry ...	10,49,024	1,83,174	12,32,198	34,34,720		1 7 6	1 8 4	0 3 9	4 6 8
Total ...	14,50,256	2,16,641	16,66,897	40,03,933	...	1 10 4	1 11 4	0 3 8	4 3 11
Total ... Government ...	3,66,44,152	40,43,886	406,88,038	4,06,99,716	35	1 13 4	2 4 2	0 3 11	2 7 4
Inam	31,72,275	10,06,691	41,78,966	95,13,632		0 9 2	0 14 10	0 3 7	2 1 9
Zemindarry ...	55,75,697	8,57,338	64,33,035	1,69,48,467		0 11 6	1 1 3	0 2 6	3 0 11
Total ...	4,53,92,124	59,07,915	5,13,00,039	6,71,61,815	...	1 5 10	1 13 3	0 3 7	2 8 5
Madras	...	...	...	...	1	...	...	...	...
Sundoor	...	...	...	...	45	...	...	...	...
Bunganapully	...	...	...	...	26	...	...	...	...
Poodoocottah	...	...	...	...	43	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...
Grand Total ...	4,53,92,124	59,07,915	5,13,00,039	6,71,61,815	35	1 5 10	1 13 3	0 3 7	2 8 5

APPENDIX No. LVIII.

STATEMENT SHOWING THE EXTENT OF CULTIVATION IN THE PRESIDENCY.

Districts.	Description of land.	Uncultivable.	Cultivable but not cultivated.	Cultivated.	Unspecified.	Total.
1	2	3	4	5	6	7
		SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Anantapore.	Government ...	942	2,057	1,237	...	4,236
	Inam	41	436	495	...	972
	Zemindars ...	...	...	...	...	...
	Total ...	983	2,493	1,732	+ 209	5,417
Bellary ...	Government ...	239	2,760	1,549	...	4,548
	Inam	17	517	758	...	1,292
	Zemindars ...	...	...	...	...	...
	Total ...	256	3,277	2,307	— 414	5,426
Chingleput ...	Government ...	873	463	700	...	2,036
	Inam	92	163	179	...	434
	Zemindars ...	102	143	121	...	366
	Total ...	1,067	769	1,000	+ 6	2,842
Coimbatore ...	Government ...	1,005	2,042	2,844	...	5,891
	Inam	7	191	315	...	513
	Zemindars ...	13	19	116	...	148
	Total ...	1,025	2,252	3,275	+ 1,252	7,804
Cuddapah ...	Government ...	4,337	1,512	1,636	...	7,485
	Inam	149	263	795	...	1,207
	Zemindars ...	...	...	...	...	...
	Total ...	4,486	1,775	2,431	+ 46	8,738
Ganjam ...	Government ...	218	110	503	...	831
	Inam	11	8	147	...	166
	Zemindars ...	408	135	946	...	1,489
	Total ...	637	253	1,596	+ 5,825	8,311
Godavery ...	Government ...	1,093	845	969	...	2,907
	Inam	34	159	504	...	697
	Zemindars ...	1,242	299	874	...	2,415
	Total ...	2,369	1,303	2,347	+ 1,326	7,345
Kistna ...	Government ...	1,697	1,425	2,228	...	5,350
	Inam	73	332	663	...	1,068
	Zemindars ...	375	381	727	...	1,483
	Total ...	2,145	2,138	3,618	+ 570	8,471
Kurnool ...	Government ...	2,993	1,096	1,315	...	5,404
	Inam	19	732	871	...	1,622
	Zemindars ...	...	...	...	...	...
	Total ...	3,012	1,828	2,186	+ 507	7,533
Madura ...	Government ...	627	1,058	1,008	...	2,693
	Inam	146	366	374	...	886
	Zemindars ...	794	792	1,306	...	2,892
	Total ...	1,567	2,216	2,688	+ 1,930	8,401
Malabar ...	Government ...	2,429	4,011	1,739	...	8,179
	Inam	...	...	17	...	17
	Zemindars ...	...	1	3	...	4
	Total ...	2,429	4,012	1,759	— 2,437	5,763
Nellore ...	Government ...	1,292	1,163	1,177	...	3,632
	Inam	262	390	483	...	1,135
	Zemindars ...	950	807	837	...	2,594
	Total ...	2,504	2,360	2,497	+ 1,378	8,739
Neilgherries.	Government ...	158	740	101	...	999
	Inam	...	...	2	...	2
	Zemindars ...	...	...	...	...	...
	Total ...	158	740	103	— 44	957
North Arcot.	Government ...	1,945	994	859	...	3,798
	Inam	44	113	173	...	330
	Zemindars ...	1,618	616	556	...	2,790
	Total...	3,607	1,723	1,588	+ 378	7,296
Salem ...	Government ...	2,886	1,445	1,374	...	5,705
	Inam	193	46	159	...	398
	Zemindars ...	732	259	780	...	1,771
	Total ...	3,811	1,750	2,313	— 145	7,729
South Arcot...	Government ...	1,134	1,795	1,705	...	4,634
	Inam	20	90	140	...	250
	Zemindars ...	15	7	15	...	37
	Total ...	1,169	1,892	1,860	— 48	4,873
South Canara.	Government ...	3,609	208	519	...	4,336
	Inam	1	3	49	...	53
	Zemindars ...	...	...	...	...	...
	Total ...	3,610	211	568	— 487	3,902
Tanjore ...	Government ...	647	321	1,490	...	2,458
	Inam	256	324	402	...	982
	Zemindars ...	69	159	71	...	299
	Total ...	972	804	1,963	— 85	3,654
Tinnevelly ...	Government ...	569	904	1,491	...	2,964
	Inam	53	131	240	...	424
	Zemindars ...	295	287	864	...	1,446
	Total ...	917	1,322	2,595	+ 547	5,381
Trichinopoly.	Government ...	515	843	1,248	...	2,606
	Inam	66	120	176	...	362
	Zemindars ...	167	278	222	...	667
	Total ...	748	1,241	1,646	— 323	3,312
Vizagapatam.	Government ...	94	23	167	...	284
	Inam	2	4	92	...	98
	Zemindars ...	300	41	1,215	...	1,556
	Total ...	396	68	1,474	+ 15,442	17,380
Total ...	Government ...	29,302	25,815	25,859	...	80,976
	Inam	1,486	4,388	7,034	...	12,908
	Zemindars ...	7,080	4,224	8,653	...	19,957
	Total ...	37,868	34,427	41,546	+ 25,433	139,274
Madras ...	...	...	...	...	...	27
Sundoor ...	...	...	...	...	...	164
Bunganapully.	...	...	...	...	...	255
Poodoocottah ...	...	...	...	...	...	1,101
	Total ...	...	...	...	...	1,547
	Grand Total ...	37,868	34,427	44,546	+ 25,433	140,821

APPENDIX No. LIX.

STATISTICS REGARDING IRRIGATED LAND AREA, AND REVENUE DERIVED THEREFROM.

(i) *All classes combined.—Statement showing the irrigable area, the occupied area, and the area actually irrigated under,—together with the revenue dependent on, and the actual revenue derived from,—the various classes of irrigation works in the Madras Presidency in* 1882-83 (*Fusly* 1292).

Works.	Irrigable area.	Occupied area.		Area effectively irrigated.			Revenue dependent on irrigation works.			
								Water.		
		First crop.	Second crop.	First crop.	Second crop.	Total.	Land.	First crop.	Second crop.	Total land and water.
1	2	3	4	5	6	7	8	9	10	11
Class I.—Productive Public Works for which Capital and Revenue Accounts are kept.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
1. Godavery Anicut	612,000	528,149	31,831	504,213	31,183	535,396	6,88,613	16,04,823	99,816	23,93,252
2. Kistna do.	415,000	287,084	79	261,158	79	261,237	3,51,225	9,76,410	168	13,27,803
3. Cauvery do.	906,017	906,017	107,076	892,871	106,344	999,215	11,96,907	27,13,938	2,48,910	41,59,755
4. Pennair do.	64,000	64,302	625	63,653	625	64,278	64,495	2,37,162	1,810	3,03,467
5. Shreeveicoontam Anicut ...	33,500	21,677	18,836	19,546	17,647	37,193	25,075	1,24,528	60,288	2,09,891
Total ...	2,030,517	1,807,229	158,447	1,741,441	155,878	1,897,319	23,26,315	56,56,861	4,10,992	83,94,168
Class II.—Agricultural Works for which Capital and Revenue Accounts are kept.										
1. Palaur Anicut	66,750	66,751	20,652	66,212	20,584	86,796	68,971	1,75,448	45,524	2,89,943
2. Chembrambaukum Tank ...	18,000	12,767	3,216	12,763	3,216	15,979	17,639	39,354	8,942	65,935
3. Pelandoray Anicut	7,541	3,461	174	3,386	174	3,560	5,838	8,787	389	15,014
4. Madras Water-supply and Irrigation Extension Project ...	8,087	7,437	2,985	7,435	2,985	10,420	8,658	16,186	4,957	29,801
Total ...	100,378	90,416	27,027	89,796	26,959	116,755	1,01,106	2,39,775	59,812	4,00,693
Class III.—Works for which Capital and Revenue Accounts are not kept, but for which a continuous record is maintained.										
Total ...	357,256	345,789	104,869	342,684	104,869	447,553	5,27,391	13,99,262	3,64,764	22,91,417
Class IV.—Works for which no Capital or Revenue Accounts are kept, and for which no continuous record is maintained.										
Imperial	1,237,548	1,101,268	271,076	1,028,268	269,325	1,297,593	12,84,251	32,77,909	5,39,520	51,01,680
Minor	1,329,412	1,259,700	316,550	1,170,158	311,572	1,481,730	13,84,939	33,86,007	5,67,906	53,38,852
Total ...	2,566,960	2,360,968	587,626	2,198,426	580,897	2,779,323	26,69,190	66,63,916	11,07,426	1,04,40,532
Grand Total ...	5,055,111	4,604,402	877,969	4,372,347	868,603	5,240,950	56,24,002	139,59,814	19,42,994	2,15,26,810

(i) *All classes combined.—Statement showing the irrigable area, the occupied area, and the area actually irrigated under,—together with the revenue dependent on, and the actual revenue derived from,—the various classes of irrigation works in the Madras Presidency in* 1882-83 (*Fusly* 1292)—(Continued).

Works.	Share due to irrigation.	Deduct remissions and deductions.	Net revenue due to irrigation.	Financial position of works on 31st March 1883.						Percentage of surplus revenue on capital expenditure
				Capital outlay.	Share of revenue due to works.	Deduct working expenses.	Balance of revenue.	Deduct interest charges.	Balance of income.	
	12	13	14	15	16	17	18	19	20	21
Class I.—Productive Public Works for which Capital and Revenue Accounts are kept.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Godavery Anicut	17,04,639	1,48,233	15,56,401	110,20,241	3,21,40,280	83,09,475	2,38,30,805	81,74,910	1,56,55,895	142·1
2. Kistna do.	9,76,578	1,44,155	8,32,423	63,30,628	1,49,77,637	46,01,857	1,03,75,780	48,19,225	55,56,555	87·8
3. Cauvery do.	29,62,848	58,002	29,04,846	11,50,138	1,38,42,400	−1,85,934	1,40,28,384	11,60,217	1,28,68,167	1,118·8
4. Pennair do.	2,38,972	4,015	2,34,957	16,65,159	14,58,121	1,51,356	13,06,765	10,74,532	2,32,233	14·0
5. Shreeveicoontam Anicut ...	1,84,816	13,075	1,71,741	13,12,135	6,11,579	2,64,497	3,47,082	5,92,518	− 2,45,436	...
Total ...	60,67,853	3,67,485	57,00,368	214,78,301	6,30,30,067	1,31,41,251	4,98,88,816	1,58,21,402	3,40,67,414	...
Class II.—Agricultural Works for which Capital and Revenue Accounts are kept.										
1. Palaur Anicut	2,20,972	3,608	2,17,364	16,80,965	13,23,351	7,41,596	5,81,755	13,71,171	− 7,89,416	...
2. Chembrambaukum Tank ...	48,296	34	48,262	7,36,589	2,95,835	30,163	2,65,672	2,86,128	− 20,456	...
3. Pelandoray Anicut	9,176	580	8,596	3,87,028	23,767	2,19,635	− 1,95,868	99,205	− 2,95,073	...
4. Madras Water-supply and Irrigation Extension Project ...	21,143	8	21,135	17,09,997	1,16,862	1,27,480	− 10,618	8,40,719	− 8,51,337	...
Total ...	2,99,587	4,230	2,95,357	45,14,579	17,59,815	11,18,874	6,40,941	25,97,223	−19,56,282	...
Class III.—Works for which Capital and Revenue Accounts are not kept, but for which a continuous record is maintained.										
Total ...	17,64,026	75,041	16,88,985	Accounts not kept.						
Class IV.—Works for which no Capital or Revenue Accounts are kept, and for which no continuous record is maintained.										
Imperial	38,17,429	4,21,645	33,95,784							
Minor	39,53,913	6,32,456	33,21,457							
Total ...	77,71,342	10,54,101	67,17,241							
Grand Total ...	1,59,02,808	15,00,857	1,44,01,951							

N.B.—This statement does not include irrigation under the Kurnool canal which has been only recently taken over by Government.

(ii) *Details of Class III in districts where found.—Statement showing the irrigable area, occupied area, and the area actually irrigated under,—together with the revenue dependent on, and the actual revenue derived from;—Class III, works for which capital and revenue accounts are not kept but for which a continuous record is maintained for* 1882-83 (*Fusly* 1292).

Districts.	Irrigable area.	Occupied area.		Area effectively irrigated.		
		First crop.	Second crop.	First crop.	Second crop.	Total.
1	2	3	4	5	6	7
	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Arcot, North	39,856	37,445	4,769	37,444	4,769	42,213
Arcot, South	144,846	144,268	13,294	141,929	13,294	155,223
Chingleput	10,600	10,263	1,531	10,228	1,531	11,759
Coimbatore	54,561	54,442	30,276	54,174	30,276	84,450
Kurnool	5,425	5,286	3,894	4,952	3,894	8,846
Salem	6,887	491	480	491	480	971
Tanjore	22,987	22,860	1,512	22,860	1,512	24,372
Tinnevelly	53,896	53,437	49,113	53,309	49,113	102,422
Vizagapatam	18,198	17,297	...	17,297	...	17,297
Total ...	357,256	345,789	104,869	342,684	104,869	447,553

Districts.	Revenue dependent on irrigation works.				Share due to irrigation.	Deduct remissions and deductions.	Net revenue due to irrigation.
	Land.	Water.		Total, land and water.			
		First crop.	Second crop.				
	8	9	10	11	12	13	14
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Arcot, North	47,118	1,23,962	12,388	1,83,468	1,36,350	7,790	1,28,560
Arcot, South	2,83,095	4,58,215	35,567	7,76,877	4,93,782	62,421	4,31,361
Chingleput	9,954	17,848	2,975	30,777	20,823	133	20,690
Coimbatore	59,964	2,98,260	64,472	4,22,696	3,62,732	2,453	3,60,279
Kurnool	5,821	25,613	15,358	46,792	40,971	1,403	39,568
Salem	465	1,434	485	2,384	1,919	9	1,910
Tanjore	29,804	63,475	3,214	96,483	66,689	...	66,689
Tinnevelly	77,785	3,67,868	2,30,305	6,75,958	5,98,173	665	5,97,508
Vizagapatam	13,385	42,587	...	55,972	42,587	167	42,420
Total ...	5,27,391	13,99,262	3,64,764	22,91,417	17,64,026	75,041	16,88,985

(iii) *Details of Class IV in districts where found.—Statement showing the irrigable area, occupied area, and the area actually irrigated under,—together with the revenue dependent on, and the actual revenue derived from;—Class IV, works for which no capital or revenue accounts are kept and for which no continuous record is maintained for* 1882-83 (*Fusly* 1292).

Districts.	Irrigable area.	Occupied area. First crop.	Occupied area. Second crop.	Area effectively irrigated. First crop.	Area effectively irrigated. Second crop.	Area effectively irrigated. Total.	Revenue dependent on irrigation works. Land.	Revenue dependent on irrigation works. Water. First crop.	Revenue dependent on irrigation works. Water. Second crop.	Revenue dependent on irrigation works. Total, land and water.	Share due to irrigation	Deduct remissions and deductions.	Net revenue due to irrigation
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Anantapore. Imperial.	59,256	44,546	10,669	39,106	10,669	49,775	28,118	1,44,677	22,339	1,95,134	1,67,016	27,178	1,39,838
Minor ...	65,649	55,233	13,627	50,340	13,627	63,967	29,506	1,60,806	27,452	2,17,764	1,88,258	29,096	1,59,162
Total ...	124,905	99,779	24,296	89,446	24,296	113,742	57,624	3,05,483	49,791	4,12,898	3,55,274	56,274	2,99,000
2. North Arcot. Imperial.	63,759	60,249	18,075	59,034	18,075	77,109	75,277	1,82,725	42,875	3,00,877	2,25,600	14,786	2,10,814
Minor ...	145,366	142,792	54,162	141,611	54,162	195,773	1,71,023	4,25,066	1,19,829	7,15,918	5,44,895	43,125	5,01,770
Total ...	209,125	203,041	72,237	200,645	72,237	272,882	2,46,300	6,07,791	1,62,704	10,16,795	7,70,495	57,911	7,12,584
3. South Arcot. Imperial.	126,527	78,294	7,724	72,068	7,724	79,792	1,32,050	2,67,036	22,345	4,21,431	2,89,381	58,056	2,31,325
Minor ...	162,820	157,953	16,986	141,045	16,986	158,031	2,50,625	5,11,413	47,377	8,09,415	5,58,790	1,36,328	4,22,462
Total ...	289,347	236,247	24,710	213,113	24,710	237,823	3,82,675	7,78,449	69,722	12,30,846	8,48,171	1,94,384	6,53,787
4. Bellary... Imperial.	34,776	29,812	11,119	28,963	11,119	40,082	16,237	1,40,694	28,588	1,85,519	1,69,282	8,696	1,60,586
Minor ...	30,155	25,812	7,482	24,347	7,482	31,829	12,416	70,697	9,001	92,114	79,698	9,473	70,225
Total ...	64,931	55,624	18,601	53,310	18,601	71,911	28,653	2,11,391	37,589	2,77,633	2,48,980	18,169	2,30,811
5. Chingleput. Imperial.	190,491	189,900	34,145	188,433	34,145	222,578	2,29,416	4,32,613	68,754	7,30,783	5,01,367	12,069	4,89,298
Minor ...	132,624	127,638	17,867	126,933	17,867	144,800	1,30,296	2,46,781	32,279	4.09,356	2,79,060	3,742	2,75,318
Total ...	323,115	317,538	52,012	315,366	52,012	367,378	3,59,712	6,79,394	1,01,033	11,40,139	7,80,427	15,811	7,64,616
6. Coimbatore. Imperial.	34,575	33,345	10,106	33,197	10,106	43,303	29,806	1,43,664	18,066	1,91,536	1,61,730	3,162	1,58,568
Minor ...	13,421	12,813	4,015	10,810	3,377	14,187	10,466	44,823	6,982	62,271	51,805	10,304	41,501
Total ...	47,996	46,158	14,121	44,007	13,483	57,490	40,272	1,88,487	25,048	2,53,807	2,13,535	13,466	2,00,069
7. Cuddapah. Imperial.	60,690	55,182	16,484	53,916	16,484	70,400	60,631	2,24,104	47,570	3,32,305	2,71,674	30,333	2,41,341
Minor ...	129,801	135,418	35,980	133,893	35,980	169,873	1,19,206	4,88,428	78,219	6,85,853	5,66,647	1,34,886	4,31,761
Total ...	190,491	190,600	52,464	187,809	52,464	240,273	1,79,837	7,12,532	1,25,789	10,18,158	8,38,321	1,65,219	6,73,102
8. Ganjam Imperial.	84,464	83,564	74	82,476	74	82,550	1,11,911	1,37,389	103	2,49,403	1,37,492	7,147	1,30,345
Minor ...	113,816	116,608	908	112,280	908	113,188	1,39,537	1,50,086	853	2,90,476	1,50,939	15,180	1,35,759
Total ...	198,280	200,172	982	194,756	982	195,738	2,51,448	2,87,475	956	5,39,879	2,88,431	22,327	2,66,104
9. Godavery. Imperial.	51,892	44,266	895	32,326	895	33,221	54,359	82,188	1,688	1,38,235	83,876	39,075	44,801
Minor ...	58,536	47,620	525	31,146	525	31,671	37,601	74,115	802	1,12,518	74,917	43,236	31,681
Total ...	110,428	91,886	1,420	63,472	1,420	64,892	91,960	1,56,303	2,490	2,50,753	1,58,793	82,311	76,482
10. Kistna ... Imperial.	39,727	26,882	35	22,274	35	22,309	32,956	75,565	83	1,08,604	75,648	18,012	57,636
Minor ...	21,358	18,368	66	16,231	66	16,297	26,830	58,116	165	85,111	58,281	14,098	44,183
Total ...	61,085	45,250	101	38,505	101	38,606	59,786	1,33,681	248	1,93,715	1,33,929	32,110	1,01,819
11. Kurnool Imperial.	16,029	15,604	2,776	14,980	2,776	17,756	16,619	56,034	6,514	79,167	62,548	5,237	57,311
Minor ...	26,518	25,543	4,048	23,875	4,048	27,923	25,866	81,978	10,186	1,18,030	92,164	13,332	78,832
Total ...	42,547	41,147	6,824	38,855	6,824	45,679	42,485	1,38,012	16,700	1,97,197	1,54,712	18,569	1,36,143
12. Madura Imperial.	112,928	103,171	48,530	89,298	48,530	137,828	1,25,104	2,37,137	76,600	4,38,841	3,13,737	67,936	2,45,801
Minor ...	92,789	84,497	26,399	68,547	26,399	94,946	1,03,691	1,73,033	38,607	3,15,331	2,11,640	82,225	1,29,415
Total ...	205,717	187,668	74,929	157,845	74,929	232,774	2,28,795	4,10,170	1,15,207	7,54,172	5,25,377	1,50,161	3,75,216
13. Nellore Imperial.	156,434	133,822	6,379	118,200	6,379	124,579	1,40,334	4,69,281	16,711	6,26,326	4,85,992	75,118	4,10,874
Minor ...	38,170	36,957	2,924	33,188	2,924	36,112	37,904	1,15,174	6,665	1,59,743	1,21,839	19,277	1,02,562
Total ...	194,604	170,779	9,303	151,388	9,303	160,691	1,78,238	5,84,455	23,376	7,86,069	6,07,831	94,395	5,13,436
14. Salem ... Imperial.	26,288	23,186	21,203	21,435	19,452	40,887	41,936	82,040	36,836	1,54,812	1,12,876	10,036	1,02,840
Minor ...	96,841	79,626	72,266	75,246	67,926	143,172	1,10,093	2,12,732	61,491	3,84,316	2,74,223	23,390	2,50,833
Total ...	123,129	102,812	93,469	96,681	87,378	184,059	1,52,029	2,94,772	92,327	5,39,128	3,87,099	33,426	3,53,673
15. Tanjore Imperial.	19,528	17,283	1,091	17,283	1,091	18,374	15,384	30,348	2,176	47,908	32,524	...	32,524
Minor ...	31,231	28,973	1,829	28,973	1,829	30,802	28,660	50,815	3,218	82,693	54,033	...	54,033
Total ...	50,759	46,256	2,920	46,256	2,920	49,176	44,044	81,163	5,394	1,30,601	86,557	...	86,557
16. Tinnevelly. Imperial.	81,379	81,534	55,664	76,059	55,664	131,723	82,612	3,56,208	1,07,174	5,45,994	4,63,382	28,911	4,34,471
Minor ...	90,280	80,764	37,134	68,881	37,134	106,015	72,434	3,27,703	87,989	4,88,126	4,15,692	44,888	3,70,804
Total ...	171,659	162,298	92,798	144,940	92,798	237,738	1,55,046	6,83,911	1,95,163	10,34,120	8,79,074	73,799	8,05,275
17. Trichinopoly. Imperial.	69,492	68,979	26,107	67,572	26,107	93,679	83,386	1,94,318	47,098	3,24,802	2,41,416	15,696	2,25,720
Minor ...	61,759	64,322	20,332	64,049	20,332	84,381	62,510	1,41,609	36,791	2,40,910	1,78,400	9,770	1,68,630
Total ...	131,251	133,301	46,439	131,621	46,439	178,060	1,45,896	3,35,927	83,889	5,65,712	4,19,816	25,466	3,94,350
18. Vizagapatam. Imperial.	9,313	11,649	...	11,648	...	11,648	8,115	21,888	...	30,003	21,888	197	21,691
Minor ...	18,278	18,763	...	18,763	...	18,763	16,275	52,632	...	68,907	52,632	106	52,526
Total ...	27,591	30,412	...	30,411	...	30,411	24,390	74,520	...	98,910	74,520	303	74,217
Total ... Imperial.	1,237,548	1,101,268	271,076	1,028,268	269,325	1,297,593	12,84,251	32,77,909	5,39,520	51,01,680	38,17,429	4,21,645	33,95,784
Minor ...	1,329,412	1,259,700	316,550	1,170,158	311,572	1,481,730	13,84,939	33,86,007	5,67,906	53,38,852	39,53,913	6,32,456	33,21,457
Total ...	2,566,960	2,360,968	587,626	2,198,426	580,897	2,779,323	26,69,190	66,63,916	11,07,426	104,40,532	77,71,342	10,54,101	67,17,241

APPENDIX No. LX.

STATISTICS OF COFFEE AND TEA CULTIVATION IN THE MADRAS PRESIDENCY DURING THE YEAR 1883.

(a)—Coffee.

Districts and localities.	Number of plantations.	Approximate average elevation.	Area in Acres.				Approximate yield in lb.	Average yield in lb. per acre of mature plants.	Cost of cultivation in the province.
			Mature plants.	Immature plants.	Taken up for planting, but not yet planted.	Total.			
1	2	3	4	5	6	7	8	9	10
		FEET.	ACRES.	ACRES.	ACRES.	ACRES.	LB.	LB.	RS.
1. Vizagapatam district— Bonaughy (Bónangi, *Tel.*) Tannah in Srungavarapoocote (Shringavarapukóta, *Tel.*) talook.	9	3,000 to 4,500	5·144	1·356	...	6·5	480	$93\frac{1}{3}$	$40\frac{8}{13}$
2. Madura district—									
Periyacoolam (Periyakkulam, *Tam.* Periyakulam*).	279	800 to 3,500	352	175	100	627	78,031	222	50 to 125
Dindigul* (Tindukkal, *Tam.*) ...	1,017	4,000	1,606	436	420	2,462	193,194	120	108
Pulney (Pazhani, *Tam.* Palni*).	2,059	4,500	1,643	177	469	2,289	931,581	567	80
Total ...	3,355	...	3,601	788	989	5,378	1,202,806	334	92
3. Tinnevelly district—									
Tencausy (Tengási, *Tam.* Tenkási*).	18	1,000 to 4,500	1,087·61	275·4	459·49	1,822·5	54,267	50	32
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram*).	11	1,000 to 4,500	109	50·95	15	174·95	25,116	230	35
Nangoonairy (Nángúnéri, *Tam.* Nángunérí*).	22	1,000 to 4,500	493·88	97·25	130·62	721·75	48,775	99	27
Total ...	51	...	1,690·49	423·6	605·11	2,719·2	128,158	76	31
4. Coimbatore district—									
Pollachy (Polláççi, *Tam.* Pollá-chi*).	5	4,600 to 4,700	185	70	414	669	53,024	287	80
Coimbatore* (Kóyamuttúr, *Tam.*).	10	4,200 to 4,500	257·79	225·4	168·97	652·16	64,227	249	75
Bhawany (Paváni, *Tam.* Bhavá-ni*).	1	4,000	·21	...	...	·21	38	181	74
Total ...	16	...	443	295·4	582·97	1,321·37	$117,289\frac{1}{2}$	265	76
5. Neilgherry district	459	3,000 to 6,000	19,786	3,111	12,231	35,128	7,085,391	358	63 to 156
6. Salem district	331	3,500 to 4,800	4,440	1,649	4,680	10,769	888,000	200	70
7. Malabar district—									
Cottayam (Kóttayam,* *Mal.*) ...	6	300	16·5	...	...	16·5	5,016	304	100
Cooroombranaud (Kurumbranátu, *Mal.* Kurumbranád*).	20	400	37	...	192·7	229·7	16,650	450	$40\frac{1}{2}$
Wynaud (Vayanátu, *Mal.* Wy-naad*).	13,483	2,400 to 4,700	22,027	2,698	24,000	48,725	3,436,212	156	250
Yernaud (Éranátu, *Mal.* Ernád*).	12	1,500	1,668	105	1,014·5	2,787·5	350,280	210	50
Valavanaud (Valluvanátu, *Mal.* Walawanád*).	47	100 to 2,000	170·39	100·16	935·72	1,206·27	5,800	34	125
Total ...	13,568	...	23,918·89	2,903·16	26,142·92	52,964·97	3,813,958	159	113
8. South Canara district—									
Cassergode (Kásaragódu, *Can.* Kásaragód*).	3	5 to 50	16·5	...	...	16·5	1,386	84	8
Ooppinangady (Uppinangadi,* *Can.*).	7	5 to 600	16·7	37·48	1·05	55·23	$2,194\frac{1}{2}$	131	110
Total ...	10	...	33·2	37·48	1·05	71·73	$3,580\frac{1}{2}$	108	59
Grand Total ...	17,799	...	53,917·724	9,208·996	45,232·05	108,358·77	13,239,663	...	...

(*a*)—*Coffee*—(Continued).

Districts and localities.	Number of plantations.	Approximate average elevation.	Area in Acres. Mature plants.	Immature plants.	Taking up for planting, but not yet planted.	Total.	Approximate yield in lb.	Average yield in lb. per acre of mature plants.	Cost of cultivation in the province.
1	2	3	4	5	6	7	8	9	10
		FEET.	ACRES.	ACRES.	ACRES.	ACRES.	LB.	LB.	RS.
Cochin State—	17	3,000	1,938·5	559	5,753·5	8,251	662,967	342	23¾
Travancore State—									
Tovaley (Tevale, *Mal.*)	9	1,317 to 2,917	1,164	342	560	2,066	23,360	83	40
Cullcoolam (Kallakkulam, *Mal.*) ...	15	753 to 1,893	2,456	34	1,292	3,782	240,568	115	35
Vilavancode (Vilavankótu, *Mal.*) ...	1	2,500 to 3,800	60	...	369	429	5,600	93	25
Nedoovengaud (Neduvannátu, *Mal.*)	1	1,700 to 3,000	120	...	430	550	28,440	237	70
Chenganore (Chenkannúra, *Mal.*) ...	1	4,800 to 5,000	15	...	...	15	1,800	120	30
Chungacherry (Channaççéri, *Mal.*).	9	3,189 to 3,744	1,456	24	384	1,864	51,073	35	48
Minauchal (Mináççal, *Mal.*) ...	20	3,080 to 3,422	997	365	1,318	2,680	84,570	85	68
Total ...	56	...	6,268	765	4,353	11,386	435,411	87	45

(*b*)—*Tea.*

Districts and localities.	Number of plantations.	Approximate average elevation.	Area in Acres. Mature plants.	Immature plants.	Taken up for planting, but not yet planted.	Total.	Approximate yield in lb. Black.	Green.	Total.	Average yield in lb. per acre of mature plants.	Cost of cultivation in the province.	Cost of manufacture per lb. in the province.
1	2	3	4	5	6	7	8	9	10	11	12	13
		FEET.	ACRES.	ACRES.	ACRES.	ACRES.	LB.	LB.	LB.	LB.	RS.	ANNAS.
1. Vizagapatam—Bonanghy (Bónangi, *Tel.*) Tannah in Srungavarapoocote (Shringavarapukóta, *Tel.*) talook.	1	3,000 to 4,200	...	1·5	40	41·5	...	...	...	...	40	...
2. Madura	2	7,000	2·25	1	...	3·25	...	...	200	89	50	...
3. Neilgherries ...	78	3,000 to 7,000	3,322	1,450	6,992	11,764	211,013	44,130	510,280	154	45 to 175	1½ to 4
4. Malabar	5	2,400 to 4,700	62	4	...	66	...	...	1,860	30	50	...
Total ...	86	...	3,386·25	1,456·5	7,032	11,874·75	211,013	44,130	512,340	151	63	1½ to 4
Travancore—												
Cullcoolam (Kallakulam, *Mal.*).	1	1,800 to 3,200	30	...	...	30	...	...	...	...	...	...
Nedoovengaud (Neduvannátu, *Mal.*).	1	2,500 to 2,600	...	25	...	25	...	...	...	...	...	...
Chungacherry (Channaççéri, *Mal.*)	1	3,000 to 3,300	15	...	73	88	2,400	...	2,400	160	60	5
Minauchal (Mináççal, *Mal.*).	23	3,818 to 4,262	92	418·5	352	862·5	14,750	...	14,750	160	76	5
Total ...	26	...	137	443·5	425	1,005·5	17,150	...	17,150	160	68	5

APPENDIX No. LXI.

ESTATES UNDER THE CHARGE OF THE COURT OF WARDS AT THE END OF FUSLY 1293, YEAR ENDING 30TH JUNE 1884.

District.	Name of the estate.	Caste of the ward.	Sex of the ward.	Age of the ward.	Date of assumption of charge.	Date when the estate will probably be restored.	Current demand for fusly 1293 (1883-84).
				YEARS.			RS.
Arcot, North ...	Cungoondy (Kangundi,* *Tel.*)	Naidoo	Male.	15	11th April 1883...	August 1890 ...	88,738
Chingleput ...	Shoranjery (Shóráñjéri, *Tam.*) ...	Brahmin, Iyengar	Do.	20	14th August 1875.	April 1885 ...	7,015
Coimbatore ...	Poravipolliem (Poravippálaiyam, *Tam.* Poravipálaiyam.*)	Chetty	Do.	20	27th May 1879...	September 1884.	12,980
Cuddapah ...	Chitticherla (Chittisarla, *Tel.*) ...	Naidoo	Do.	15	29th Sept. 1876.	February 1890 ...	1,189
Ganjam ...	Parlakimedy (Parlákimedi,* *Tel.*) ...	Ooriyah, Cshatriya	Do.	54	July 1830 ...	The proprietor is an imbecile.	3,86,137
	Chinna Kimedy (Chinna Kimedi,* *Tel*) or Pertaubgherry (Pratápagiri, *Tel.*).	Ooriyah, Cshatriya	Do.	15	27th Dec. 1876. ...	June 1890 ...	68,745
	Jarada (Dzarada, *Tel.*)	Ooriyah, Cshatriya	Do.	13	19th July 1880 ...	May 1892 ...	23,528
	Oorlaum (Urlámu, *Tel.* Urlám *) ...	Ooriyah, Cshatriya	Female.	15	27th March 1879.	January 1890 ...	44,534
						Total for Ganjam ...	5,22,944
Godavery ...	Lakkavaram (Lakkavaramu, *Tel.*) ...	Brahmin	Male.	8	15th Dec. 1879 ...	June 1897 ...	10,914
	Gopalpore (Gópálapuramu, *Tel.* Gopálpur*).	Brahmin	Do.	21	28th Sept. 1874...	February 1884...	71,882
	Capileshwarapooram (Kapiléshvarapuramu, *Tel.*) and Keshanacooroo (Késhanakurru, *Tel.* Kesanakurru *).	Brahmin	Female.	22	27th Sept. 1869...	June 1883 ...	36,615
						Total for Godavery ...	1,19,411
Madura ...	Ramnaud (Rámanáthappuram, *Tam.* Ramnad*).	Maravar	Male.	15	15th March 1873.	October 1889 ...	7,68,910
	Guntamanaickanoor (Kandamanáyakkanúr, *Tam.* Gandamanáyakanúr *).	Naidoo	Do.	17	27th Sept. 1867...	24th Jan. 1888 ...	53,486
	Vadagaray (Vadagarai, *Tam.*)	Naidoo	Do.	10	7th Nov. 1881 ...	24th Dec. 1894...	3,497
						Total for Madura ...	8,25,893
Malabar ...	Kavalpaura (Kavalappára, *Mal.*) ...	Nayar	Female.	18	9th August 1872.	May 1887 ...	36,175
	Mangara (Mankara, *Mal.*)	Nayar	Male.	18	3rd Dec. 1877 ...	June 1886 ...	5,214
	Vimbalan's (Vimpalan's) estate ...	Numboory	Do.	31	February 1880...	The proprietor is a lunatic.	418
						Total for Malabar ...	41,807
Salem ...	Yeroomayputty (Erumaippatti, *Tam.* Erumaipati *) and Palayapolliem (Pazhayappálaiyam, *Tam.*).	Brahmin	Female.	33	5th June 1874 ...	Not known ...	15,349
	Shoolagherry (Shúlagiri, *Tam.*) ...	Brahmin	Male.	2	5th March 1883.	March 1902 ...	17,032
						Total for Salem ...	32,381
South Canara...	Brahmahwar (Brahmávara, *Can.*) Sarwottama Row's (Sarvóttama Rávu's) Estate.	Brahmin	Male.	14	14th Aug. 1875...	December 1891...	4,280
Tanjore ...	Ookkaday (Ukkadai, *Tam.*)	Maravar	Male.	12	12th July 1879 ...	July 1893 ...	21,016
	Vailangauny (Vélángáni, *Tam.*) ...	Vellaular, Pillay	Do.	18	15th Nov. 1879...	12th June 1887...	2,862
	Gundaracottah (Kandaruvakkóttai, *Tam.* Gandharvakóta*).	Vellaular, Pandauram	Do.	10	9th March 1881.	11th Dec. 1894 ...	30,089
	Vadaputtymungalam (Vadappattimangalam, *Tam.*).	Vellaular, Moodelliar	Do.	14	29th Aug. 1881...	7th March 1891...	49,821
	Alangoodicherry (Álangudiççéri, *Tam.*)	Naidoo	Do.	17	25th Aug. 1881...	7th Nov. 1887 ...	6,305
	Mattoor (Máttúr, *Tam.*)	Brahmin	Do.	12	20th Nov. 1882...	6th Sept. 1892 ...	6,213
	Paupanaud (Páppánádu, *Tam.*) ...	Maravar	Do.	17	13th Mar. 1882...	5th Sept. 1887 ...	14,131
	Shingivanam (*Tam.*)	Naidoo	Do.	17	1st Feb. 1884 ...	15th Mar. 1895 ...	2,891
						Total for Tanjore ...	1,33,328
Trichinopoly ...	Peramoor (Peramúr, *Tam.*)	Brahmin	Male.	36	30th Nov. 1868 ...	The proprietor is an imbecile.	11,317
	Nangavaram (*Tam.*)	Brahmin	Do.	10	18th Nov. 1880...	31st Oct. 1895 ...	16,618
						Total for Trichinopoly ...	27,935
Tinnevelly ...	Vaudy Mittah (Vádimittá, *Tam.* Vádimitta*).	Naidoo	Male.	11	17th Nov. 1879 ...	7th Jan. 1894 ...	15,821
	M. Dalavoy Comarasawmy Moodelliar's (M. Dalaváyi Kumárasámi Muthaliár's) Estate.	Vellaular, Moodelliar	Do.	18	20th Sept. 1881...	10th June 1887 ...	12,502
	Roshan Miah Sahib's (Raushan Miyán Sáhib's) Estate.	Mahomedan	Do.	17	7th July 1882 ...	6th May 1887 ...	5,268
						Total for Tinnevelly ...	33,591
Vizagapatam ...	Merangy (Mérangi, *Tel.* Merangi*) ...	Condah raz	Male.	16	25th Nov. 1869 ...	1st Feb. 1889 ...	45,784
	Pandoor Mallavaram (Pandúru Mallavaramu, *Tel.*).	Condah raz	Do.	20	19th June 1877...	1st April 1885 ...	2,966
	Madgole (Mádugula,* *Tel.*)	Condah raz	Female.	58	19th Oct. 1877 ...	...	3,153
	Chidicauda Juggannadapooram (Chidikáda Jagannádhapuramu, *Tel.*).	Condah raz	Do.	44	25th Sept. 1877...	...	22,679
	Shreepooram (Shripuramu, *Tel.* Sripuram*).	Condah raz	Male.	10	5th Sept. 1878 ...	16th Aug. 1895 ...	17,235
	Cheepoorpully (Chipurupalle,* *Tel.*)...	Condah raz	Female.	46	13th May 1882 ...	...	8,882
						Total for Vizagapatam ...	1,00,699

APPENDIX No. LXII.

NOTES ON THE SETTLEMENT OF REVENUE IN THIRTEEN MADRAS DISTRICTS.

Arcot, North. *Arcot, South.* *Chingleput.* *Coimbatore.*	*Cuddapah.* *Ganjam.* *Godavery.*	*Kistna.* *Kurnool.* *Nellore.*	*Salem.* *Tinnevelly.* *Trichinopoly.*

ARCOT—NORTH.

Area ... ... 7,296 *sq. miles.*
Population ... ... 1,817,814.

THIS district passed into the hands of the English along with the rest of the Carnatic in 1801. The original survey or pymash of the district commenced in 1801-2. The district passed through the several phases of triennial and decennial leases until 1820 when the ryotwarry settlement was introduced; the assessments then imposed proving excessive and detrimental to the prosperity of the district, a uniform reduction of 12½ per cent. was sanctioned by Government: this also had not the desired effect of extending cultivation and improving the condition of the people; the question of revising the assessments was once investigated and reported on by Mr. Bourdillon in 1854-55 and his proposals were accepted and carried out in 1857-58 with the result that a reduction of 30 per cent. in wet and 15 per cent. on dry assessment was allowed throughout the district.

The survey began in 1872-73, but the submission of proposals for the settlement was delayed by the famine of 1876-78 till the middle of 1880, when a scheme was submitted for the four northern talooks of the district. The proposals were finally approved by Government in April 1881.

The soils for this portion of the district are in the following proportions:—

Soil class.	Percentage on total assessable area.
Exceptional	1
Black clay	2
Do. loam	19
Do. sand	6
Red loam	18
Do. sand	54

Grain experiments were made in 1,756 cases and the values adopted are as follows:—

Soil.	Dry.			Wet.
	Sazza.	Raggy.	Varagoo.	Paddy.
Exceptional ...	360 to 300	390 to 320	...	...
Black clay ...	340 to 150	360 to 165	480 to 180	1,100 to 570
Do. loam ...	340 to 150	360 to 165	480 to 180	1,200 to 650
Do. sand ...	250 to 115	275 to 120	380 to 140	1,000 to 500
Red loam ...	290 to 130	310 to 135	400 to 160	1,100 to 570
Do. sand ...	250 to 115	275 to 120	330 to 140	1,000 to 500

These values are subject to deductions of one-fifth for vicissitudes of season while paddy has been taken as the standard grain for wet lands as on the other settlements, sazza or cumboo, raggy and aroogoo or varagoo for dry lands. The commutation prices which are noted below were calculated from the averages of the 20 years 1846-1865 less a deduction of 10 per cent. for cartage and merchant's profits.

	Per garce.
	RS.
Paddy	95
Sazza or cumboo	115
Raggy	126
Aroogoo or varagoo	75

Cultivation expenses were estimated as shown below:—

Soil class.	Wet.	Dry.
	RS. A. P. RS. A. P.	RS. A. P. RS. A. P.
Exceptional	...	4 6 10 to 4 6 10
Black clay	11 15 6 to 8 8 0	4 1 4 to 3 4 6
Do. loam	12 3 0 to 9 5 0	4 1 4 to 3 4 6
Do. sand	11 5 5 to 8 0 0	3 14 6 to 2 9 6
Red loam	11 15 6 to 8 8 0	4 1 4 to 2 13 8
Do. sand	11 5 5 to 8 0 0	3 14 6 to 2 7 4

The Government demand is half of the net produce.
The maximum and minimum rates are given below:—

Soil.	Wet.		Dry.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Exceptional	...	...	3 8	2 8
Black clay	7 0	2 8	3 0	0 12
Do. loam	8 0	3 0	3 0	0 12
Do. sand	6 0	2 0	1 12	0 6
Red loam	7 0	2 8	2 4	0 8
Do. sand	6 0	2 0	1 12	0 6

The rest of the district will be settled on the same data of grain values, commutation prices, cultivation expenses and revenue rates.

The immediate results for two of the six settled talooks for which information has been received are as follows:—

	RS.
Old assessment	6,65,800
New do.	7,49,559
Difference	83,759
Percentage	12·6
Cost	14,49,821
Percentage of return to cost	5·8

ARCOT—SOUTH—(TWO TALOOKS).

Area (*whole district*) ... 4,873 *sq. miles.*
Population (*do. do.*) ... 1,814,738.

THE Chidambaram and Munnargoody talooks, which are now merged and form the chief portion of the Chidambaram talook of the South Arcot district, are a level rice-growing tract of black soil, watered from the Coleroon anicut built in 1836-37.

The talooks came into the possession of the English, with the rest of the Carnatic, in 1801. Till 1805, the assessments on wet land were taken in kind, at 45 to 70 per cent. of gross produce, and the dry assessments in cash. A survey was made in 1806, and rates were adopted for four classes of soil in five classes of villages; but triennial and decennial leases succeeded till 1820-21, when the ryotwarry settlement was introduced on the rates of 1806, increased by one-third in 1836 for fifth class or dry villages, in consideration of their conversion into wet by the construction of the anicut. But these rates were reduced again 10 per cent. in 1855, and 20 per cent. for the other four classes of villages. The highest rate on garden lands was at the same time reduced to Rupees 7.

These talooks were the first in the Presidency to come under re-settlement. They differ somewhat in soil-classification from later-settled tracts. Survey began in 1853, and lasted till 1858; and the new assessments were introduced in 1861-62.

The survey showed that the occupied area had been over-estimated in the revenue accounts by 4 per cent. The soil percentages were—

	Percentage on total area.
Exceptional	4
Black clay	70
Do. loam	22
Red soil	1·5
Poor soil, sand, and gravel	4·5
	100

The irrigation percentage in 1859 was 70, that is, 70 per cent. of the cultivated area in that year was under irrigation. In 1862, after re-settlement, it was 59, the wet area having actually increased, but less rapidly than the dry area, which had extended nearly 50 per cent.

The standard crops were paddy for wet, and cholam, cumboo, raggy, and varagoo for dry lands. Experiments with paddy were 300 in number; for dry grains, which occupied a comparatively small area, the number of experiments is not stated, nor do they seem to have been very satisfactory. The grain-values finally adopted were (in Madras measures per acre)—

Soil.	Dry.				Wet.
	Cholam.	Cumboo.	Raggy.	Varagoo.	Paddy.
Alluvial ...	432	504	528	...	1,080
Permanently improved ...	384	432	432	...	960
Black soil ...	384 to 288	408 to 336	360 to 288	648	840 to 672
Do. loam ...	...	408 to 288	384 to 240	648 to 480	960 to 672
Red soil ...	...	336 to 240	288	600 to 480	720 to 480
Inferior and sandy ...	...	340 to 192	...	408 to 312	432 to 360

These estimates were subject to a deduction of 15 to 30 per cent. on irrigated, and 25 per cent. on dry land. Commutation prices were fixed, in the case of paddy, with regard to the selling price in the whole district from 1809 to 1858 in the months of February and March; and, in the case of dry grains, on the prices of Chidambaram market for some shorter period. They were as follows :—

	Per garce. RS. A. P.
Paddy	71 12 8
Cholam	116 10 8
Cumboo, Raggy }	93 5 4
Varagoo	51 13 8

Cultivation expenses were estimated as follows per acre :—

Soil.	Dry.				Wet.
	Cholam.	Cumboo.	Raggy.	Vara-goo.	Paddy.
	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
Alluvial	5 0 ...	as for cholam	... ...	... ...	8 0 ...
Permanently improved.	5 0 ...	as for cholam	... ...	... ...	8 0 ...
Black soil ...	5 0 to 4 8	as for cholam	... ...	4 0 ...	7 8 to 7 0
Do. loam ...	... ...	5 0 to 4 0	5 0 to 3 8	4 0 to 3 8	8 0 to 7 0
Red soil ...	... ...	4 8 to 3 8	4 0 ...	4 0 to 3 8	7 0 to 5 0
Inferior and sandy.	... ...	3 8 ...	... ...	3 8 to 3 0	5 0 to 4 0

The revenue-rates were an approximation to two-thirds of the net produce, and stood as follows :—

Soil.	Dry.		Wet.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Alluvial	3 8	...	8 8	6 8
Permanently improved	3 0	...	7 8	5 8
Black clay	2 8	1 12	6 8	3 8
Do. loam	2 8	1 8	7 8	3 8
Red soil	1 12	1 4	5 8	2 8
Inferior and sandy	1 0	0 8	3 0	2 0

The new assessments made no material change in the revenue demand. Their average incidence per acre was—

	RS. A. P.
Wet	5 8 5
Dry	1 14 0
Total	3 15 10

The latest returns show the following results of the settlement in these two talooks :

	RS.
Old assessment	5,28,518
Present demand (1882-83)	5,49,593
Difference	21,075
Percentage	4
Cost	8,29,286
Percentage of return to cost	2·5

The smallness of the settlement charges is due to the fact that there was no field demarkation, and that the survey was made somewhat roughly by an establishment on very low pay.

NOTE.—The settlement of the remaining portion of the district was resumed in November 1882: the classification of lands in Cuddalore talook was finished and in another, Villoopooram, is in progress.

CHINGLEPUT.

Area ... ... 2,842 *sq. miles.*
Population ... ... 981,381.

THE Chingleput district was part of the territories ceded by the Nawab of the Carnatic in 1750 and 1763. It was farmed by the Nawab till 1780, and after having been nearly depopulated by Hyder Ally's invasion, was let out to renters on a nine years' lease, which broke down in 1790, when the lands were made over "in small allotments on a three years' lease to the chief inhabitants of each locality." A joint-rent system, with the Government share (in cash) estimated at 43 to 50 per cent. on wet, and 55 per cent. of produce on dry land, lasted from 1794 to 1799. A permanent settlement with 61 zemindars was attempted in 1801, broke down in 1806, and was succeeded by triennial leases as before. The ryotwarry system had, however, been partially introduced as early as 1803, and was gradually extended to the entire district. It was based on a survey and classification of the land, estimates of average outturn for ten years, deduction of 20 per cent. for expenses, and assumption of half the remainder as the Government share. The rates varied from Rupees 18-2-10 to Rupees 1-1-2 for wet, and from Rupees 9-4-9 to Rupee 0-12-7 for dry land; but the maximum wet-rate was reduced to Rupees 8-5-1 in 1859.

Mirassy rights existed in this district. The mirassidars are the descendants and representatives of the original village settlers. Their primitive tenure consisted in a periodical division of the arable lands of the village. This developed, as usual, into a permanent apportionment of lands according to recognised shares, leaving, however, much waste in common. Until the introduction of the ryotwarry system, the mirassidars contrived to keep their villages intact, admitting no strangers except artizans; but this claim to monopoly clashed with the ryotwarry system as regards the occupation of waste. The mirassidars impoverished themselves, and hindered the improvement of their villages, in their endeavours to prevent their waste lands from passing into the hands of strangers. At the present settlement the whole question was settled as follows :—

(1.) The mirassidars divided their common land between them in proportion to their shares.

(2.) An allotment of permanently unassessed waste land was made to the village, sufficient to satisfy all reasonable requirements for grazing ground and firewood jungle.

(3.) A manorial fee of two annas in the rupee on assessments from non-mirassy occupants was accepted by the mirassidars as an equivalent for their manorial rights. There is no legal means of recovering this fee, but no difficulty was expected in making it a customary payment.

The soil of the district is generally inferior. Irrigation is carried on from a system of 3,000 tanks and channels, fed by small rivers, and watering about 330,000 acres. The largest tank is the Chembrambaukum, with an irrigated area of over 12,000 acres.

Survey began towards the close of 1866, and the new assessments were introduced into the various talooks from 1875-76 to 1878-79.

I. *Principal Division.*—The soils of this portion of the district are in the following proportions:—

Soil class.		Percentage on total assessable area.	
Permanently improved ...		Inconsiderable (0·3)	
Black soil ...	Clay	7	12
	Loam	5	
	Sand	Inconsiderable	
Red ...	Clay	5	84
	Loam	32	
	Sand	47	
Arenaceous ...	Loam	1	4
	Sand	1	
	Heavy sand	2	

The arenaceous series embraces the cultivated lands along the sea-board.

The number of experiments for grain-values was 126 with dry, and 3,184 with wet crops, and the values adopted were (in Madras measures per acre)—

Soil.		Dry.		Wet.
		Raggy.	Varagoo.	Paddy.
Permanently improved ...		480	600 to 504	......
Black ...	Clay ...	320 to 156	440 to 276	720 to 390
	Loam ...	384 to 186	504 to 306	840 to 460
	Sand ...	256 to 126	376 to 246	600 to 320
Red ...	Clay ...	256 to 126	376 to 246	600 to 320
	Loam ...	320 to 156	440 to 276	720 to 390
	Sand ...	256 to 126	376 to 246	600 to 320
Arenaceous ...	Loam ...	256 to 156	376 to 276	600 to 390
	Sand ...	226 to 156	346 to 276	530 to 320
	Heavy sand.	186 to 126	306 to 246	460 to 320

These values were subject to a deduction of one-fourth for dry and one-sixth for wet lands. The dry standards were taken half in raggy and half in varagoo. Commutation prices were calculated from the averages of the 20 years 1846—1865, less a deduction of 12½ per cent. for cartage and merchant's profits, and were as follows:—

	Per garce. RS.
Paddy ...	105
Raggy ...	142
Varagoo ...	89

Cultivation expenses were estimated as below:—

Soil class.		Wet.	Dry.
		RS. A. RS. A.	RS. A. RS. A.
Permanently improved ...		......	6 0 to 5 8
Black ...	Clay ...	9 12 to 5 8	5 0 to 3 14
	Loam ...	11 0 to 6 8	5 8 to 4 2
	Sand ...	8 8 to 4 8	4 10 to 3 10
Red ...	Clay ...	8 8 to 4 8	4 10 to 3 10
	Loam ...	9 12 to 5 8	5 0 to 3 14
	Sand ...	8 8 to 4 8	4 10 to 3 10
Arenaceous ...	Clay ...	8 8 to 5 8	4 10 to 3 14
	Loam ...	7 8 to 4 8	4 6 to 3 14
	Sand ...	6 8 to 4 8	4 2 to 3 10

The Government demand was half the net produce. Maximum and minimum rates were—

Soil.		Wet.		Dry.	
		Maximum.	Minimum.	Maximum.	Minimum.
		RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved ...		...	...	4 0	2 0
Black ...	Clay ...	6 4	2 0	2 8	0 6
	Loam ...	7 8	2 8	3 0	0 8
	Sand ...	5 0		2 0	0 4
Red ...	Clay ...	5 0		2 0	0 4
	Loam ...	6 4		2 8	0 6
	Sand ...	5 0	2 0	2 0	0 4
Arenaceous ...	Loam ...	5 0		2 0	0 6
	Sand ...	4 0		1 8	0 6
	Heavy sand ...	3 8		1 4	0 4

II. *The rest of the district* was settled on the same data as to grain-values, commutation prices, cultivation expenses, and revenue-rates.

The soil percentages in the Conjeeveram and Chingleput talooks were—

		Per cent.	
Black ...	Clay ...	9	38
	Loam ...	22	
	Sand ...	7	
Red ...	Clay ...	2	59
	Loam ...	29	
	Sand ...	28	
Arenaceous ...	Loam ...	1	3
	Sand ...	2	
	Heavy sand ...	0	

In the last remaining talook (Madrantacam) the soil percentages are given as—

		Per cent.	
Black ...	Clay ...	8	52
	Loam ...	37	
	Sand ...	7	
Red ...	Clay ...	0	48
	Loam ...	17	
	Sand ...	31	

For the entire district the immediate results of the settlement were as follows:—

	RS.
Old assessment ...	13,57,612
New do. ...	15,24,045
Difference ...	1,66,433
Percentage ...	12·3
Cost ...	13,34,537
Percentage of return to cost ...	12·5

The increase of recorded occupied area by the survey was 11·3 per cent. The average ryot's holding before the famine was 8·7 acres, assessed at Rupees 22-10-6 (1874-75). At present (1877-78) it is 8 acres at Rupees 20-15-5. Wet and dry average-rates are Rupees 3-9-11 and Rupees 1-2-6. The irrigation percentage is 58. Culturable waste is 42 per cent. of the whole assessable area.

Second-crop has partly been compounded for at one half to one-fourth in addition to single-crop rates; there is also a large casual area of this kind of cultivation.

The settlement expires in 1908-9. It is estimated that a lakh will have been added by that time, by extension of cultivation, and that two lakhs more can be gained a revision by adopting the Cuddapah commutation price for paddy.

COIMBATORE—(TEN TALOOKS).

Area (*whole district*) ... 7,804 *sq. miles.*
Population (*do. do.*) ... 1,657,690.

THE ryotwarry settlement made in Coimbatore in 1801 and 1802, on one-half the produce of wet, and two-fifths the produce of dry lands, gave an increase of 8 per cent. in the northern, and of 17 per cent. in the southern division, where, however, remissions amounting to 6¾ lakhs had to be made in 1807. Triennial and decennial leases followed; the latter cancelled in 1815, when the ryotwarry settlement was re-introduced, differing from the present system only in this, that the ryot had not the right, as he has now, of resigning any particular field and returning the rest of his holding. This restriction was shortly afterwards abolished. Remissions, to the extent of 5¾ lakhs, were made between 1817 and 1865. The ryotwarry system has thus been in force for 64 years.

The district of Coimbatore is an elevated plain about 900 feet above the sea level, bounded on the north and west by the Western Ghauts, and on the north-east by the Cauvery, which receives three affluents in this district—the Bhawany, Noyil, and Amravatty. Irrigation from the Noyil is effected by means of a series of flood tanks, and from the other rivers by canals supplied from permanent or temporary dams. The strips thus watered on either side of the stream are not broad, but their combined areas amount to more than 40,000 acres, yielding a revenue of about 4 lakhs.

Survey began in 1867, and the settlement scheme was submitted in September 1875, and sanctioned on the 6th December 1878 for the whole district. The new assessments were finally introduced in 1881-82 in the whole district.

The survey added 7 per cent. to the occupied area recorded in the revenue accounts.

Soil percentages are—

Black ...	Clay ...	3
	Loam ...	7
	Sand ...	3
Red ...	Loam ...	19
	Sand ...	68
	Total ...	100

The "permanently improved" dry class was ordered by the local Government not to be used in Coimbatore. After 1,540 experiments with dry grains, and 1,572 with paddy, grain-values were taken as below (Madras measures per acre):—

—		Wet. Paddy.	Dry. Cumboo, Cholum and Raggy.
Black ...	Clay	1,200 to 300	250 to 150
	Loam	1,200 to 300	250 to 150
	Sand	900 to 300	200 to 100
Red ...	Loam	1,200 to 300	225 to 125
	Sand	900 to 300	200 to 100

Commutation prices, on the average of 20 years ending 1864, were high—Rupees 126 for paddy and Rupees 119 for dry grains, but modified by 20 per cent. deduction from the grain-values for weather chances and unprofitable areas. Cultivation expenses range from Rupees 3-6-4 to Rupees 2-3-4 for dry, and from Rupees 13-2-10 to Rupees 4-12-10 per acre for wet lands. The revenue-rates adopted were—

Soil.		Dry. Maxi-mum.	Dry. Mini-mum.	Wet. Maxi-mum.	Wet. Mini-mum.
		RS. A.	RS. A.	RS. A.	RS. A.
Black ...	Clay	2 0	0 8	10 0	3 0
	Loam ...	2 0	0 8	12 0	3 8
	Sand ...	1 4	0 4	8 0	2 8
Red ...	Loam ...	1 8	0 6	10 0	3 0
	Sand ...	1 4	0 4	8 0	2 8

These rates were estimated to give a general revenue incidence of one rupee on dry, and about 4 rupees per acre on wet lands. The estimated gain was 4 per cent. on the old assessment of Rupees 14,84,940. Among other questions arising in the course of settlement was that of the assessment of lands watered from old so-called Government wells. These lands had been brought down to the highest dry-rate by express order of the Court of Directors in 1852. It was proposed to place them in the "permanently-improved" class, like old well-lands in other districts, but the proposition was abandoned, in view of the exceptional treatment hitherto accorded to them.

Second-crop lands under the Calingaroyen irrigation channel will be assessed at consolidated rates one-half in excess of single-crop rates, and elsewhere the ryots will have the option of compounding at one-third and one-fourth extra.

The district was settled on the "block system." The rates for the five talooks applied to the whole of the district.

The immediate result of the settlement for the entire district was as follows:—

	RS.
Old assessment	25,28,299
New do.	26,54,146
Difference	1,25,847
Percentage	5
Cost	21,80,213
Percentage of return to cost	5·8

CUDDAPAH.

Area ... ... 8,738 *sq. miles.*
Population ... ... 1,121,038.

CUDDAPAH was one of the ceded districts, and was under Sir T. Munro's ryotwarry settlement from 1801 to the completion of the survey in 1807. In 1808, village rents on triennial leases were adopted, and were exchanged for decennial leases in 1811. The results were arrears of revenue amounting in 1820 to three lakhs and a quarter, while many of the renters were in jail. The ryotwarry settlement was then again resorted to, upon rates 25 per cent. lower than those of 1807 on wet and dry land, and 33 per cent. lower on garden land. Since then, the principal measures of relief have been (1) remissions, (2) separate assessment (in 1832) of second-crop at 50 per cent. in excess of single crop, and (3) reduction of well-lands to the highest dry-rate in 1868.

Irrigation in the principal or north-eastern division of the district is from tanks (581), wells (25,389), and river and spring channels (1,066). There are 24 small anicuts, but no general system of river irrigation. The sub-division gets its water chiefly from tanks, to the number of no less than 4,194, of which 1,314 belong to the Government. They occupy almost every spot adapted for a reservoir, and are capable of storing much more water than there ever is to fill them. A small area is under the Madras Irrigation Company's canal.

Survey began in 1865, and settlement schemes for various portions of the district were submitted in 1871, 1874, and 1878. The new assessments were finaly introduced in all talooks.

I. *Talooks Jummalmudoogoo, Proddootore, and Cuddapah.*—The soil percentages are shown as follows:—

—		Per cent. Jummal-mudoogoo.	Per cent. Proddoo-tore.	Per cent. Cuddapah.
Permanently improved ...		1·04	0·27	1·20
Black ...	Clay	62·16	47·66	31·02
	Loam	21·13	23·27	21·26
	Sand	8·37	5·22	10·44
Total black soil ...		91·66	76·15	62·72
Red ...	Clay	0·22	1·33	2·98
	Loam	2·48	15·85	21·02
	Sand	4·60	6·40	12·80
Total red soil ...		7·30	23·58	36·80

The irrigated area was only 4·75 per cent. of the total occupied area.

The number of experiments made to obtain grain-values was 467 for jonna, 377 for korra, and 568 for paddy, and the grain-values adopted stood as follows:—

Soil class.		Dry. Jonna.	Dry. Korraloo.	Wet. Paddy.
Permanently improved ...		500 to 380	...	1,450 to 1,300
Black ...	Clay	400 to 100	...	1,200 to 360
	Loam ...	300 to 100	...	1,300 to 600
	Sand ...	220 to 80	...	900 to 360
Red ...	Clay	260 to 180	280 to 200	1,000 to 600
	Loam ...	220 to 120	240 to 140	900 to 550
	Sand ...	140 to 80	160 to 100	600 to 360

Jonna and korraloo in equal proportions formed the dry standard. The grain-values were subject to the usual deductions for unprofitable areas and weather chances.

Commutation prices, based on the Salem average, i.e., the average of 1846 to 1865, were—

	Per garce. RS.
Jonna	139
Korraloo	100
Paddy	126

after deductions on account of carriage, wastage, and merchant's profits, to the extent of 15 per cent. for jonna, 12 for korra, and 10 per cent. for paddy. The commutation price of paddy is the highest yet adopted, and contrasts strikingly with the low prices assumed in the earlier settlements.

Cultivation expenses per acre were estimated as below:

Soil.		Wet.	Dry.
		RS. A. P. RS. A. P.	RS. A. P. RS. A. P.
Permanently improved ...		19 0 0 to 18 6 3	6 2 9 to 6 1 9
Black ...	Clay ...	17 5 0 to 5 13 0	4 15 9 to 2 4 2
	Loam ...	18 4 0 to 7 11 6	3 15 11 to 2 4 2
	Sand ...	12 8 0 to 5 13 0	3 11 1 to 2 0 4
Red ...	Clay ...	13 8 0 to 7 11 6	4 1 7 to 3 1 8
	Loam ...	12 8 0 to 7 3 10	3 6 2 to 2 5 11
	Sand ...	7 12 0 to 5 13 0	2 7 5 to 1 14 3

and the revenue-rates deduced from these data varied as follows:—

Soil.		Dry. Maxi-mum.	Dry. Mini-mum.	Wet. Maxi-mum.	Wet. Mini-mum.
		RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved		5 0	3 0	12 0	10 0
Black ...	Clay	4 0	0 8	9 0	2 8
	Loam	3 0	0 8	10 0	5 0
	Sand	1 12	0 4	7 0	2 8
Red ...	Clay	1 12	1 0	8 0	5 0
	Loam	1 8	0 8	7 0	4 8
	Sand	0 12	0 4	5 0	2 8

These assessment data were used for all the rest of the district, except the four talooks above the Ghauts.

II. *Budwail, Sidhout, and Pullampet.*—Here the soil percentages are—

Soil.	Per cent.
Permanently improved	6
Black	21
Red	73

Loam predominates, especially in the black soil. The irrigation percentage was 18·4.

III. *Poolivendla.*—Here the soil percentages are—

Soil.	Per cent.
Permanently improved	0·40
Black	76·45
Red	23·15

Clay predominates in the black, and sand in the red soil. The irrigation percentage was only 4·6.

IV. *Royachoty.*—The soil here is practically all red loam or sand (79·53 per cent. of the latter per acre).

Sazza and paddy were taken as the staple crops, and the results of 3,403 experiments were grain-values as subjoined (in Madras measures per acre) :—

Soil.		Sazza.	Paddy.
		Maximum. Minimum.	Maximum. Minimum.
Permanently improved		325 to 225	......
Black ...	Clay ...	260 to 145	1,025 to 400
	Loam ...	225 to 120	1,150 to 500
	Sand ...	170 to 80	800 to 320
Red ...	Clay ...	225 to 120	800 to 320
	Loam ...	200 to 100	900 to 360
	Sand ...	170 to 80	800 to 320

Commutation prices on the Salem 20 years' period less 12 and 10 per cent. respectively, were Rupees 130 per garce for sazza and Rupees 126 for paddy. The maximum cultivation expenses in wet lands were Rupees 16-4-0 ; the minimum in dry Rupees 3-13-0. Revenue rates were—

Soil.		Dry. Maximum.	Dry. Minimum.	Wet. Maximum.	Wet. Minimum.
		RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved		3 0	1 8	...	...
Black ...	Clay	2 0	0 12	8 0	3 0
	Loam	1 8	0 8	9 0	3 8
	Sand	1 0	0 4	6 0	2 0
Red ...	Clay	1 0	0 8	6 0	2 0
	Loam	1 4	0 6	7 0	2 8
	Sand	1 0	0 4	6 0	2 0

Lands watered by Government (dasabandham) wells were at first assessed to special rates, ranging as high as Rupees 10, but were subsequently ordered to be assessed at the highest rate for the soil in which they may be classed.

There remaining three other talooks of the subdivision were assessed on the same data as Royachoty.

For the whole district the following results are given :—

	RS.
Old assessment	15,60,605
New do.	16,71,302
Difference	1,10,697
Percentage	7·1
Cost	2,71,408·6
Percentage of return to cost	4·1

In these talooks the increase of recorded area due to the survey was 3½ per cent.

GANJAM.

Area (*whole district*) ... 8,311 *sq. miles.*
Population (*do. do.*) ... 1,749,604.

The district of Ganjam, was part of the Northern Circars. The zemindarry system was introduced in 1803, and by 1809 several of the estates had begun to come back upon the hands of the Government, and were settled on the sharing system, at half the produce of dry and four-fifths the produce of wet lands, till 1817, when the ryotwarry system was gradually introduced.

The country is an undulating plain rising gently from the sea, and broken by numerous low rocky hills. A portion of it is deltaic. Most of the irrigation is by river channels from the Vamshadhara and Nagauvaly, principally the former. The channels are maintained at Government expense. There is no anicut, but a project for one on the Vamshadhara has been submitted.

Survey began in August 1866, and the settlement scheme was submitted in March 1875, but the new assessments did not come in till 1877-78.

The soil percentages are—

Permanently improved		0·7
Black ...	Clay	30
	Loam	23
	Sand	28
Red	Clay	0
	Loam	2
	Sand	9
Arenaceous ...	Loam	2·3
	Sandy	5
		100

Raggy and paddy were taken for wet and dry lands respectively. Experiments were numerous, viz., 1,521 for paddy, and 408 for raggy.

The grain-values are as under—

Soil.		Raggy.	Paddy.
		Maximum. Minimum.	Maximum. Minimum.
Permanently improved		420 to 375	......
Black ...	Clay ...	375 to 225	800 to 500
	Loam.	325 to 225	800 to 600
	Sand...	250 to 160	700 to 420
Red	Clay ...	......	......
	Loam	275 to 225	700 to 500
	Sand...	250 to 160	600 to 420
Arenaceous ...	Loam.	275 to 200	700 to 500
	Sand	250 to 160	600 to 420
	Heavy Sand.	200 to 160	500 to 420

These values were subject to a deduction of 6¼ per cent. in wet, and 25 per cent. in dry lands.

Commutation prices, based on the average of 1855-56 to 1874-75 (exclusive of two famine years), were Rupees 80 per garce for paddy, and Rupees 105 for raggy. Cultivation expenses varied from Rupees 7-10-3 to Rupees 6-7-0 on wet, and from Rupees 4-15-6 to Rupees 2-14-2 on dry lands. The revenue rates adopted were—

Soil.		Dry. Maximum.	Dry. Minimum.	Wet. Maximum.	Wet. Minimum.
		RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved		4 0	2 0	...	...
Black ...	Clay	2 8	0 12	5 8	1 4
	Loam	2 0	0 12	5 8	1 8
	Sand	1 4	0 4	4 8	
Red	Loam	1 8	0 12	4 8	
	Sand	1 4	0 4	3 8	
Arenaceous ...	Loam	1 8	0 8	4 8	1 4
	Sand	1 4	0 4	3 8	
	Heavy sand ...	0 12	0 4	2 8	

The results of settlement for two talooks are shown as follows :—

	RS.
Old assessment	4,82,685
New assessment	5,56,993
Difference	68,308
Percentage	14·2
Cost	11,90,885
Percentage of return to cost	5·7

The survey added 20 per cent. to the recorded occupied area of the district. The average wet and dry rates are—

Talook.	Wet.	Dry.
	RS. A. P.	RS. A. P.
I	3 13 5	1 3 3
II	2 14 2	1 5 3
III	2 13 4	1 1 9

Second-crop cultivation is very limited in extent, and has hitherto been untaxed. It will henceforth pay an extra rate of one-fourth the single-crop assessment, whether compounded for or not.

The new assessments were introduced in 1878-79 and 1883.

NOTE.—The new assessments were introduced into the third talook (Goomsoor) in 1883 but the result has not been reported.

GODAVERY.

Area ... ... 7,345 sq. miles.
Population ... ... 1,791,512.

THE Godavery district is divided into the deltaic portion and the uplands. Most of the delta is irrigated from the works constructed between 1847 and 1853, and subsequently extended. The upland tracts are mostly unirrigated, and contain much jungle and some hills.

This district originally formed part of the Northern Circars, and consisted chiefly of zemindarries, which fell to pieces one after another. According to the principle adopted by the Board of Revenue in 1794, zemindarry villages lapsing to direct Government management were leased out to the village headmen on the joint-rent system, under which (in theory) the whole body of cultivators were held jointly and severally responsible for the payment of the entire assessment of the village, as annually fixed, all details being adjusted by the villagers themselves. This was replaced in 1817 by a distribution of the dry land assessment among the ryots annually, or for a term of years, and by the "sharing system" for wet lands, i.e., the conversion into money of the Government share of the crop, as ascertained either by estimate or by actual measurement and division. The dry land assessments were at the same time engaged for by the villagers jointly, so that this system differed little from that of joint-rents, to which, however, the Board refused to revert in 1830. Nine years later the division of produce was ordered to be discontinued, and the renting of villages was re-introduced. By this time the revenue of the district had begun to decline so rapidly that a Commission was appointed to inquire into the causes. The result was the general adoption of the joint-rent system, pending regular survey and settlement. This was in 1844. The joint-rent system involved the two main principles of joint and several responsibility for the Government demand, and of non-interference of Government officers after the demand had been fixed. Neither principle was fully acted upon, though rules were made in 1854 to ensure their better observance.

The survey began in 1858. Demarcation and classification were completed in 1860-61, and field measurements in 1861-62. Proposals for the western delta were submitted in October 1860, and for the rest of the district in April 1861. The new settlement came into operation in the western delta on the 1st July 1862, and in the rest of the district three years later.

This is one of the districts with a separate water-rate. Land irrigated from Government sources pays a water-rate of Rupees 4 per acre (originally fixed at Rupees 3, subject to a deduction of 12 annas for baling, and 1 rupee for imperfect irrigation).

The survey area of the entire district proved to be no less than 35·6 per cent. in excess of the area by the revenue accounts; but this was chiefly due to the inclusion of swamps and unprofitable areas which the old surveys carefully excluded.

I. *Western Delta.*—The soil of the western delta is mostly black clay, composing from 65·64 to 96·37 per cent. of the assessable area of the various talooks. Black loam and sand similarly range from 8·3 to 3 per cent. Arenaceous soil occupies 19½ per cent. of the area of one talook only. The standard crops taken were cholum, cumboo, raggy, and black paddy for dry lands, and white paddy for wet lands. Tobacco was taken for the islands, but their aggregate area was inconsiderable. Experiments by the Settlement department were 319 in number, and 1,030 more were made by the Revenue officials. The grain-values finally adopted were (in Madras measures per acre)—

Soil.		Dry.				Wet.
		Cholum.	Cumboo.	Raggy.	Black paddy.	White paddy.
Alluvial		800 to 533	666 to 466	933 to 600	933 to 600	... ...
Permanently improved		800 to 333	666 to 233	933 to 400	933 to 400	1,200 to 666
Black...	Clay ...	733 to 133	600 to 133	800 to 133	866 to 200	1,066 to 433
	Loam ...	600 to 133	466 to 133	600 to 133	666 to 133	1,200 to 533
	Sand ...	... ...	433 to 133	533 to 166	533 to 133	933 to 333
Arenaceous.	Loam ...	... ...	400 to 266	400 to 266	333 to 200	733 to 566
	Sand ...	... ...	266 to 133	333 to 200	266 to 133	533 to 400
	Heavy sand.	... ...	200 to 133	266 to 100	200 to 66	466 to 333

One-sixth was deducted for vicissitudes of season. To obtain commutation prices, the price lists in the selling months only were examined as far back as 1230 F. (1820), and the prices finally adopted were—

Per garce.
RS.
White paddy 72
Black do. 60
Cumboo 60
Raggy 66
Cholum 84

Cultivation expenses were estimated as follows per acre :—

Soil.		Dry.			Wet.
		Cholum.	Cumboo.	Raggy and black paddy.	Paddy.
		RS. A.	RS. A.	RS. A.	RS. A.
Alluvial		4 12 ...	3 8 ...	4 0 ...	... ...
Permanently improved		4 12 to 4 8	3 8 to 3 4	4 0 to 3 12	5 8 to 5 4
Black...	Clay ...	4 8 to 4 0	4 0 to 3 8	4 4 to 3 12	5 4 to 4 12
	Loam ...	3 8 to 3 0	3 4 to 2 12	3 8 to 3 0	5 0 to 4 8
	Sand ...	... ...	2 4 to 2 0	3 4 to 2 12	5 0 to 4 8
Arenaceous.	Loam ...	... ...	}	3 8 to 2 12	5 0 to 4 12
	Sand ...	... ...	2 4 to 2 0	3 0 to 2 12	3 12 to 3 8
	Heavy sand.	... ...	}	3 0 ...	3 12 to 3 8

The revenue-rates approximated to a moiety of the net produce. They were the same for wet and dry lands, the former being assessed also to water-rate.

Soil.		Maximum.	Minimum.
		RS. A.	RS. A.
Permanently improved		5 0	2 0
Black ...	Clay	4 0	0 8
	Loam	3 0	0 6
	Sand	2 4	0 6
Arenaceous	Loam	2 0	0 12
	Sand	1 0	0 6
	Heavy sand	0 12	0 4

To these rates must be added, for irrigated lands, the water-rate at Rupees 4 an acre. In the islands, which are exceptionally fertile, 23 per cent. of the occupied area was rated at Rupees 20, 3 per cent. at Rupees 12, and 54 per cent. at Rupees 5 per acre; but the whole area as above noted, was inconsiderable.

II. *Central and Eastern Delta and upland Talooks.*—Here the soil percentages are—

Alluvial 4
Permanently improved 1
Black ... Clay 49
Black ... Loam 9
Black ... Sand 1
Total black ... 59

Red ... Clay 1
Red ... Loam 8
Red ... Sand 24
Total red ... 33

Arenaceous Loam 2
Arenaceous Sand 1
Arenaceous Heavy sand ... ...
Total arenaceous ... 3

Grain-values for arenaceous soils were somewhat higher than in the western delta, and an addition was made to the standard crops by taking horse gram for raggy and black paddy in the red soils. One talook, extensively under cane, was separately treated. One-fourth was deducted from gross produce in the uplands, and one-sixth elsewhere. Commutation prices were—

	Per garce.
	RS.
White paddy	72
Black do.	60
Raggy	66
Cumboo	60
Horse gram	96

Cultivation expenses were much the same as in the western delta, and the revenue rates corresponded entirely, excess in the uplands, where a consolidated wet-rate was imposed. The upland rates originally framed were returned by the local Government for re-consideration, as being in excess of half net produce, and when finally brought down to that standard, they stood as follows :

Soil.	Dry. Maximum.	Dry. Minimum.	Wet. Maximum.	Wet. Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved	4 8	1 8	7 0	3 0
Black ... Clay	3 8	0 4	5 8	1 8
Black ... Loam	2 8	0 4	6 8	2 8
Black ... Sand	2 0	0 6	5 0	1 8
Red ... Clay	2 8	1 0	5 0	1 12
Red ... Loam	2 0	0 4	6 0	1 8
Red ... Sand	0 12	0 4	4 8	1 4

besides exceptional rates of Rupees 20 and Rupees 12 on improved lands.

The immediate results of the revision of settlement for the whole district were—

	RS.
Old assessment	20,54,721
New do.	26,01,521
Difference	5,46,800
Percentage	26·6
Cost	8,46,206
Percentage of return to cost	64·6

The Bhadrachellam talook which was transferred from the Central Provinces subsequently to the settlement is not included in the above figures.

The settlement expires in 1892 and 1896. It is calculated that at the present average rate of increase (½ per cent. per annum) Rupees 1,33,772 more will have been added to the revenue by extension of cultivation. If the water-rate is at the same time raised so as to place the higher wet-rates on a level with those in districts under consolidated wet-rates, the increase should be very considerable. At present the average dry assessment is Rupees 1-11-0, and the average wet assessment, including water-rate, is Rupees 6-2-9 per acre. The average ryot's holding is 10·8 acres, assessed at Rupees 20-7-0. The irrigation percentage is 42.

KISTNA.

Area ... ... 8,471 *sq. miles.*
Population ... ... 1,548,480.

The Goontoor portion of the Kistna district was ceded by the Nizam in 1788. At that time the revenue was paid by zemindars who were hereditary farmers. This system continued for 12 years, with a fluctuating revenue demand, and no fixed basis of assessment. The permanent settlement introduced in 1801 was made with five zemindars, at two-thirds of the collections from the ryots, which were estimated at half the gross produce. Under this system, here as elsewhere, the ryots were pillaged, and the zemindars ruined themselves. By 1843 the sunnuds of most of the proprietors had been surrendered on condition of maintenance, and on the 1st April 1846 the estates were finally sold, and bought in for Government at the upset price of Rupees 5,000 each, in default of bidders. The district was then settled on what was indifferently called the mucta or ryotwar system. In its original shape, this more or less resembled the joint-rent system, with the fullest liberty to the ryots to distribute the village assessment over their fields, but it eventually merged into a pure ryotwarry settlement. Reduction of rates in 1857 involved an immediate revenue decrease of about 10 per cent. The old rates were numerous and complicated, numbering in one talook as many as 655 for dry and 138 for garden lands.

The Pulnaud was ceded in 1801, and annexed to Goontoor. Village-rents were in force from 1808 to 1820, when a ryotwarry settlement was made. Here, also, the rates were reduced in 1857.

In the Masulipatam portion of the district the zemindarry system was similarly tried and failed, and was followed at first by direct management and division of the crop by actual measurement, then by "the estimating method of sharing the crop," and finally by the joint-rent system, which, though not a success, lasted till the present settlement. At that time (1862) an unsuitable revenue system and some local disasters (notably the great famine of 1833) had reduced the country to a very depressed state.

The lowland portions of the district are watered from the Godavery and Kistna anicuts, and pay a separate water-rate of Rupees 4 per acre. In the uplands, which are tank-watered, a consolidated wet assessment prevails.

Survey began in 1859, and the settlement scheme for Masulipatam was submitted in October 1861, and for Goontoor in 1868, but the new assessments were not introduced till 1866-67 and 1873-74 respectively. The excess of survey area over that of the revenue accounts was 6·3 per cent.

I. *Masulipatam Division.*—The soil percentages are shown as follows :—

Soil.	Percentage.
Alluvial	5
Permanently improved	1
Black ... Clay	64
Black ... Loam	11
Black ... Sand	2
Total black ...	77
Red ... ... Clay	...
Red ... ... Loam	3
Red ... ... Sand	1
Total red ...	4
Arenaceous ... Loam	2
Arenaceous ... Sand	8
Arenaceous ... Heavy sand	3
Total arenaceous ...	13

The standard dry crops were jonna (cholum) and black paddy in the delta, and jonna and sazza in the uplands; the wet crop was white paddy everywhere. Grain-values are shown below :—

Soil.	Dry grains.	Paddy.
	MAX. MIN.	MAX. MIN.
Alluvial	600 to 200	1,000 to 600
Permanently improved	600 to 280	1,100 to 800
Black ... Clay	500 to 120	800 to 360
Black ... Loam	400 to 100	1,000 to 480
Black ... Sand	320 to 60	640 to 280
Red ... ... Clay	240 to 180	800 to 600
Red ... ... Loam	180 to 120	700 to 510
Red ... ... Sand	120 to 90	520 to 480
Arenaceous ... Loam	320 to 120	640 to 400
Arenaceous ... Sand	240 to 80	480 to 280
Arenaceous ... Heavy sand	180 to 60	360 to 200

They were subject to a deduction of one-sixth in the delta, and one-fourth in the uplands, for vicissitudes of season. Cultivation expenses were estimated at Rupees 1-2-6 to Rupees 3-14-6 on dry, and Rupees 4-8-0 to Rupees 7-6-9 per acre on wet lands; and commutation prices, based on the averages of 30 years ending 1859, excluding years of famine, were—

—	Per garce. Delta.	Per garce. Uplands.
	RS.	RS.
Jonna	100	95
Black paddy	65	...
Sazza	...	70
White paddy	80	90

The revenue-rates approximated rather to one-third of the gross than to half the net produce, and were considerably higher than the latter on the poorer soils. They are shown as follows :—

—	Dry. Delta and Upland.		Wet. Upland only.	
	Maximum.	Minimum	Maximum.	Minimum
	RS. A.	RS. A.	RS. A.	RS. A.
Alluvial	3 8	1 8	5 0	...
Permanently improved.	3 8	1 12	6 0	5 0
Black ... Clay ...	2 8	0 12	4 8	2 8
Black ... Loam ...	2 0	0 8	5 0	3 0
Black ... Sand ...	1 8	0 4	3 8	2 0
Red ... Clay ...	1 4	0 12	4 8	3 8
Red ... Loam ...	0 12	0 8	4 0	3 0
Red ... Sand ...	0 8	0 4	3 0	2 8
Arenaceous. Loam ...	1 8	0 8	...	...
Arenaceous. Sand ... / Heavy sand	1 0	0 4	...	...

II. *Goontoor Division.*—Here the soil percentages are—

		Per cent.
Alluvial	... ...	2
Permanently improved	... ...	1
Black ...	Clay	68
	Loam	21
	Sand	1
	Total ...	90
Red	Clay	...
	Loam	2
	Sand	...
	Total ...	2
Arenaceous ...	Loam	1
	Sand	4
	Heavy sand	...
	Total ...	5

The irrigation percentage was only 6, but was increasing under the influence of the delta canals. It was nearly all in the southern delta.

The dry standard crops were jonna and varagoo, and the wet crop was white paddy. Experiments were 839 in number, and the grain-values finally adopted stood as follows (Madras measures per garce) :—

Soil.	Jonna and varagoo.	Paddy.
Alluvial	560 to 340	......
Permanently improved	560 to 400	1,200 to 950
Black ... Clay	440 to 280	1,050 to 725
Black ... Loam	360 to 240	1,100 to 725
Black ... Sand	320 to 220	900 to 650
Red ... ... Clay	360 to 280	900 to 800
Red ... ... Loam	320 to 240	800 to 725
Red ... ... Sand	280 to 220	725 to 650
Arenaceous ... Loam	300 to 280	......
Arenaceous ... Sand	280 to 240	
Arenaceous ... Heavy sand	240 to 220	

Commutation prices were based on a range of 58 years. The Salem period of 20 years ending 1864-65 was rejected after trial by the Board's orders, as involving an excessive enhancement of revenue demand, and the prices originally proposed were finally adopted, viz. :—

	Per garce.
	RS.
Jonna	112
Varagoo	86
Paddy	100

A deduction of one-sixth in first class, and of one-fourth in second and third class villages, was made for ordinary agricultural vicissitudes. Cultivation expenses per acre were estimated as follows :—

Soil.	Dry.	Wet.
	RS. A. P. RS. A. P.	RS. A. P. RS. A. P.
Alluvial	5 5 4 to 4 14 0	......
Permanently improved ...	5 5 4 to 4 15 6	12 12 5 to 12 6 5
Black ... Clay ...	5 0 4 to 4 12 2	12 8 10 to 12 1 0
Black ... Loam ...	4 13 6 to 4 11 2	12 10 0 to 12 1 0
Black ... Sand ...	4 12 8 to 4 10 8	12 5 2 to 11 15 1
Red ... Clay ...	4 15 6 to 4 12 2	12 5 2 to 12 2 9
Red ... Loam ...	4 12 8 to 4 11 2	12 2 9 to 12 1 0
Red ... Sand ...	4 11 2 to 4 10 8	12 1 0 to 11 15 1
Arenaceous. Loam ...	4 13 6 to 4 12 2	......
Arenaceous. Sand ...	4 12 8 to 4 11 2	
Arenaceous. Heavy sand	4 11 2 to 4 10 8	

The resulting revenue-rates, at half net produce, were as follows for each of the soil classes :—

—	Dry.		Wet.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Alluvial	4 8	1 8	...	...
Permanently improved	4 8	2 0	7 8	5 0
Black ... Clay	3 0	0 12	6 0	2 8
Black ... Loam	2 0	0 8	6 8	2 8
Black ... Sand	1 8	0 4	4 8	1 12
Red ... ... Clay	1 12	0 12	4 8	3 0
Red ... ... Loam	1 4	0 8	3 0	2 8
Red ... ... Sand	0 12	0 4	2 8	1 12
Arenaceous ... Loam	1 0	0 12	...	...
Arenaceous ... Sand	0 12	0 8		
Arenaceous ... Heavy sand ...	0 8	0 4		

For the entire Kistna district the immediate results of the settlement are shown below :—

	RS.
Old assessment	30,04,342
New do.	36,16,264
Difference	6,11,922
Percentage	20·3
Cost	12,01,732
Percentage of return to cost	50·9

By the time the settlement expires in 1896-97 and 1903-4, it is estimated that four lakhs will have been added to the revenue by extension of cultivation (at ½ per cent. per annum). Five lakhs more may possibly be obtained from certain projected irrigation works.

KURNOOL.

Area	7,533 *sq. miles.*
Population	6,78,551

Kurnool Proper lies above the eastern ghauts, and became an immediate British possession upon the deposition of the jagheerdar in 1839. The revenue system then found to be in force was that of renting the villages to the headmen, who distributed the lands and fixed the rates at their pleasure. The consequence was great inequality of assessment, "and although there was very little liberty in those days for the ryot to contract his holding, the authorities were obliged to allow the relinquishment of much land, and from 1249 to 1253 F. there was a steady decrease of the revenue." The demand was excessive as well as unequal. A rough field survey was made between 1841 and 1843, but the Board refused to undertake any general revision of assessment, pending the regular survey, which did not begin till nearly 20 years later. Meanwhile relief was given both by temporary remissions and by annual alteration of the rates of assessment, in the direction both of enhancement and reduction, but with a balance always in favour of the latter. In common with the rest of the Presidency, Kurnool shared the benefit of the Court of Directors' orders of 1851, abolishing the high tax on special products. Prices rose largely from 1843, and brought back prosperity.

The rest of the district was settled on the ryotwarry system from 1801 to 1807. Competitive leases were afterwards tried as a substitute in some places, but by 1821-22 the whole tract had again come under the ryotwarry settlement, upon the general basis of Sir Thomas Munro's scheme, *i.e.*, a reduction, as compared with the rates prevailing before 1807, of 25 per cent. on dry and wet, and 33 per cent. on garden lands. Some further reductions were made in 1858, and in 1865 and 1869, the latter relating to well-lands, which were brought down to the highest dry-rate of the village, while the reductions of 1858 affected wet and dry lands generally in two talooks.

Irrigation throughout the district generally is from tanks, 'doroovoo' wells or water-holes, and small streams. There is no extensive river system. The Madras Irrigation and Canal Company opened the canal from Kurnool to Cuddapah, throughout its whole length, in 1871-72, but the area watered had risen to only 14,763 acres by 1875-76, and was 90,285 and 50,918 acres respectively in the two exceptional years that followed. These areas are for the Kurnool and Cuddapah districts together, but the bulk of the irrigation is in Kurnool, viz., 75,192 acres in 1876-77, when the Government undertook to pay the water-rate if the crop failed, and 35,099 acres in 1877-78, when no such guarantee was given. The canal-irrigated area is not classed as wet, because the water-rate is paid to the

company, and only the dry-crop assessment to the Government. Lands otherwise irrigated in Kurnool Proper were originally assessed at dry rates plus a separate water-cess; but the water-cess is now no longer separately shown, and the total revenue demand from all the wet lands of the district appears under a single heading.

Survey began in 1859, and settlement in 1861, but the new assessments were not introduced till 1864-65, 1872-73, 1873-74, and 1878-79.

Kurnool Proper.

The soil percentages are as follows :—

		Per cent.
Permanently improved	...	0·39
Black soil...	Clay ...	51·21
	Loam ...	30·52
	Sand ...	7·10
	Total black soil ...	88·83
Red soil ...	Clay ...	0·15
	Loam ...	6·53
	Sand ...	4·10
	Total red soil ...	10·78

Jonna and aroogoo were taken for dry, and paddy for wet lands, but paddy was subsequently rejected, and the principle of dry assessment plus water-cess was adopted, as mentioned above. Experiments in dry grains appear to have numbered only 132. The grain-values came out as follows (in Madras measures per acre) :—

Soil.		Jonna.	Aroogoo.
Permanently improved ...		480 to 440	...
Black ...	Clay ...	360 to 120	...
	Loam ...	280 to 120	...
	Sand ...	200 to 80	...
Red ...	Clay ...	...	320 to 240
	Loam ...	...	240 to 160
	Sand ...	...	160 to 80

Commutation prices were—

	Per garce.
	RS.
Jonna ...	105
Aroogoo ...	60

They were calculated on the averages of the previous 24 years. One-fourth of the gross value was deducted for unprofitable areas and agricultural risks.

Cultivation expenses were estimated as follows per acre :—

Soil.		Dry. From	Dry. To
		RS. A. P.	RS. A. P.
Permanently improved		5 3 1	4 14 1
Black ...	Clay	4 2 4	1 15 6
	Loam	3 15 11	1 15 9
	Sand	3 0 9	1 8 2
Red ...	Clay	2 7 10	1 14 1
	Loam	1 14 1	1 6 1
	Sand	1 6 1	0 12 0

The resulting revenue-rates are shown below :—

Soil.		Dry. Maximum.	Dry. Minimum.
		RS. A.	RS. A.
Permanently improved		3 8	3 0
Black ...	Clay	2 8	0 8
	Loam	1 8	0 8
	Sand	1 0	0 4
Red ...	Clay	1 0	0 12
	Loam	0 12	0 8
	Sand	0 8	0 4

Putticondah Talook.

The soil percentages are—

		Per cent.
Black ...	Clay ...	23
	Loam ...	9
	Sand ...	2
	Total black soil ...	34
Red ...	Clay ...	1
	Loam ...	31
	Sand ...	34
	Total red soil ...	66

Jonna and paddy were taken for dry and wet lands. Experiments were 229 in number for jonna, and 57 for paddy, and the results were the following grain-values (in Madras measures per acre) :—

Soil.		Dry (jonna).	Wet (paddy).
Permanently improved ...		480 to 400	1,200
Black...	Clay ...	360 to 120	1,000 to 400
	Loam ...	280 to 120	1,100 to 600
	Sand ...	180 to 80	800 to 400
Red ...	Clay ...	220 to 150	800 to 600
	Loam ...	170 to 100	640 to 450
	Sand ...	100 to 60	450 to 300

These grain-values were subject to "the usual deduction of 25 per cent."

Commutation prices, based upon the price lists for the entire district during the 20 years ending 1274 Fusly (1863-64), stood as below, after a deduction of 13½ per cent. for jonna and 10 per cent. for paddy on account of merchant's profits, &c. :—

	Per garce.
	RS.
Jonna ...	125
Paddy ...	120

Cultivation expenses per acre were estimated as follows :—

Soil.		Dry. Maximum.	Dry. Minimum.	Wet. Maximum.	Wet. Minimum.
		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Permanently improved...		6 11 4	6 5 4	17 4 1	...
Black...	Clay ...	4 9 10	2 8 0	15 4 4	5 4 0
	Loam ...	4 6 3	2 8 0	16 4 1	7 3 0
	Sand ...	1 12 0	1 12 0	10 0 0	5 4 0
Red ...	Clay ...	3 13 0	2 12 3	10 0 0	7 13 0
	Loam ...	2 12 3	1 12 0	7 13 0	5 9 6
	Sand ...	1 12 0	1 1 0	5 9 6	3 10 0

The resulting revenue-rates are subjoined :—

Soil class.		Dry. Maximum.	Dry. Minimum.	Wet. Maximum.	Wet. Minimum.
		RS. A.	RS. A	RS. A.	RS. A.
Permanently improved...		3 8	2 8	8 0	...
Black...	Clay ...	3 0	0 8	6 8	3 0
	Loam ...	1 12	0 8	7 0	5 0
	Sand ...	1 0	0 4	6 0	3 0
Red ...	Clay ...	1 4	0 12	6 0	4 8
	Loam ...	1 0	0 8	5 0	3 8
	Sand ...	0 8	0 4	3 8	2 8

Coilcoontla Talook.

Here the soil percentages are as follows :—

Soil.		Per cent.
Permanently improved	...	0·86
Black ...	Clay ...	76·96
	Loam ...	15·2
	Sand ...	5·17
Red ...	Clay ...	...
	Loam ...	0·71
	Sand ...	1·28

The irrigation percentage was only 2·22.

Grain-values, revenue-rates, and all other assessment data were the same as those for the Cuddapah talook of the Cuddapah district, to which district Coilcoontla belonged at the time.

Cumbum and Markapore Talooks.

Soil percentages are—

	Per cent.
Permanently improved ...	0·63
Black soil ...	16·63
Red soil ...	82·74

Most of the red soil is loam. The irrigation percentage was only 7½.

Jonna was taken as the dry crop on black soil, and half jonna half korraloo on red soil; for wet lands paddy was the standard crop. Experiments in these three crops were 950

in number, and the grain-values finally adopted stood as follows (in Madras measures per acre) :—

Soil.	Dry.		Wet.
	Jonna.	Korraloo.	Paddy.
Permanently improved ...	440 to 240	...	1,300 to 900
Black... Clay	360 to 100	...	1,050 to 350
Black... Loam	300 to 100	...	1,200 to 600
Black... Sand	240 to 80	...	750 to 300
Red ... Clay	260 to 120	280 to 120	900 to 350
Red ... Loam	240 to 80	250 to 80	900 to 350
Red ... Sand	200 to 80	220 to 80	750 to 300

These grain-values were subject to the usual deduction for unprofitable areas and vicissitudes of season.

Commutation prices, determined as in Putticondah, were (per Madras garce)—

	RS.
Jonna	125
Korraloo	90
Paddy	120

Cultivation expenses are not shown, except for the best dry black clay, Rupees 4-8-6; judging from which, they cannot differ much from those adopted in Putticondah.

The resulting revenue-rates were as shown below :—

Soil.	Dry.		Wet.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved...	3 8	1 8	...	...
Black... Clay	3 0	0 8	7 8	2 8
Black... Loam	2 4	0 8	9 8	4 8
Black... Sand	1 8	0 6	5 8	2 8
Red ... Clay	1 8	0 8	6 8	2 8
Red ... Loam	1 4	0 6	6 8	2 8
Red ... Sand	1 0	0 4	5 8	2 8

For the entire district the immediate results of settlement were as follows :—

	RS.
Old assessment	13,16,798
New do.	11,86,367
Difference	1,30,431
Percentage	9·9
Cost	15,39,861
Percentage of return to cost	8·5

Survey areas were 9·3 per cent. in excess of the occupied area by the revenue accounts. The revenue collections of 1874-75 (before the famine) were Rupees 13,05,076. In 1877-78, after the introduction of the new settlement into the Cumbum and Markapore talooks, the collections were Rupees 9,87,330 only, but the full assessment was Rupees 12,78,408, though famine losses had diminished the cultivated area by no less than one-fourth since 1874-75. The average ryot's holding remained much the same, viz., 14·3 acres, assessed at Rupees 14-5-5. Second-crop cultivation has not been compounded for, and is not extensive; only Rupees 24,319 were realised on this account in 1877-78. The irrigation percentage is only 2·2, exclusive of canal-watered lands (3 per cent. of the cultivated area of 1877-78). The average wet and dry-rates are Rupees 6-5-6 and Rupee 0-15-2 respectively. Culturable waste occupies 40 per cent. of the assessable area.

By the time the settlement expires (1895 to 1904), it is calculated that two lakhs will have been added by extension of cultivation. The gain by changing the commutation price of paddy will be inconsiderable.

NELLORE.

Area	8,739 *sq. miles.*
Population	1,220,236.

The talooks composing the Nellore district were ceded in 1801. A ryotwarry settlement was made at 55 per cent. of the gross produce, and lasted till 1807-8, when it broke down under the pressure of bad seasons, and the village-rent system was introduced. This, again, was abandoned in 1821-22, and the ryotwarry system was reverted to, and has continued ever since. About 1854 the highest rate on garden lands was reduced to Rupees 8, and commutation prices were lowered by 2 and 3 annas in the rupee. In 1857-58 the highest wet-rate was reduced to Rupees 9-9-8, and the lower rates were modified in proportion. These changes amounted to a relinquishment of 14 per cent. of the revenue demand upon wet, and 6¼ per cent. of that upon dry lands. In 1865-66, garden lands not receiving Government water were classed as dry, involving a further surrender of half a lakh. The result of all these changes in the mode and incidence of assessment was great inequality in the pressure of the revenue demand.

Four rivers of the district are used for irrigation. The chief of these is the Pennair, a river having a catchment basin of about 20,000 square miles, of uncertain supply, and subject to considerable floods. An anicut was built across it between 1855 and 1860. By means of this work, water is diverted into two old native channels recently improved and extended, and these supply a great series of tanks. The irrigated tract is the eastern portion of the district, extending to the sea. Jungle and low hills are the principal features of the western talooks.

Survey began in 1861. It added 16½ per cent. to the recorded occupied area. The scheme for the principal division was submitted in December 1870, and that for the sub-division in May 1872; and settlement was actually made in 1873-74 and 1874-75.

I. *Principal Division.*—The soil percentages are as follows :—

		Per cent.
Black soil ...	Clay	16
	Loam	30
	Sand	12
	Total black soil ...	58
Red soil ...	Clay	...
	Loam	26
	Sand	10
	Total red soil ...	36
Arenaceous ...	Loam	...
	Sand	3
	Heavy sand	3
	Total arenaceous ...	6

Jonna and aroogoo were taken for dry, and paddy (both white and black) for wet lands. Experiments extended over seven years, and were exceptionally numerous—2,771 for jonna, 425 for aroogoo, and 2,230 for paddy. Grain-values, as finally fixed, were as follow (in Madras measures per acre) :—

Soil.	Jonna.	Aroogoo.	Paddy.
Permanently improved ...	350 to 250	600 to 412	1,025 to 850
Black ... Clay	300 to 125	500 to 175	840 to 550
Black ... Loam ...	250 to 116	400 to 175	900 to 650
Black ... Sand... ...	166 to 80	300 to 112	775 to 500
Red ... Clay ...	190 to 140	312 to 225	775 to 650
Red ... Loam ...	212 to 96	325 to 150	840 to 625
Red ... Sand ...	166 to 80	275 to 112	770 to 500
Arenaceous Loam ...	......	......	750 to 650
Arenaceous Sand ...	......	......	650 to 600
Arenaceous Heavy sand.	......	......	625 to 500

One-sixth was deducted on dry lands, and on wet lands 5, 10, 13⅓ or 20 per cent., according to the class of irrigation. Commutation prices were calculated on the Salem period of 20 years ending 1864-65, with a deduction of 10 per cent. for the difference between retail and wholesale prices. They are, per garce—

	RS.
Jonna	129
Aroogoo	64
Paddy	107

Cultivation expenses are shown below :—

Soil.	Dry.	Wet.
	RS. A. P. RS. A. P.	RS. A. P. RS. A. P.
Permanently improved.	3 11 1 to 2 2 4	10 8 3 ......
Black soil ... Clay ...	4 3 4 to 1 14 8	10 8 3 to 9 14 9
Black soil ... Loam ...	3 9 3 to 1 11 11	10 8 3 to 10 0 7
Black soil ... Sand ...	3 5 5 to 1 4 10	10 6 5 to 9 9 7
Red soil ... Clay ...	3 9 1 to 1 14 5	10 6 5 to 10 0 7
Red soil ... Loam ...	3 3 7 to 1 5 4	10 5 6 to 9 14 9
Red soil ... Sand ...	2 11 3 to 1 4 4	10 4 6 to 9 9 7
Arenaceous (Aroogoo only in dry lands). Loam ...	1 10 8 to 1 10 3	9 15 1 to 9 10 3
Arenaceous (Aroogoo only in dry lands). Sand ...	1 8 7 to 1 7 6	9 10 3 to 9 8 4
Arenaceous (Aroogoo only in dry lands). Heavy sand.	1 6 7	9 8 4 to 9 3 2

The maximum expenses for dry land relate in every case to jonna, and the minimum to aroogoo—a much more cheaply cultivated grain.

The maximum and minimum revenue-rates were—

Soil.	Dry.		Wet.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved	4 0	2 8	10 8 to	6 0
Black ... Clay	3 0	0 10	9 8 to	8 0
Black ... Loam	2 4	0 10	8 0 to	3 8
Black ... Sand	1 4	0 4	6 8 to	2 0
Red ... Clay	1 8	0 12	6 8 to	3 8
Red ... Loam	2 0	0 8	7 8 to	3 8
Red ... Sand	1 8	0 4	6 8 to	2 0
Arenaceous Loam	1 4	0 12	6 8 to	4 0
Arenaceous Sand	1 0	0 8	5 4 to	3 8
Arenaceous Heavy sand ...	0 12	0 4	4 12 to	2 0

II. *Sub-Division.*—Here the soil percentages are—

		Per cent.
Black soil ...	Clay	32
	Loam	28
	Sand	9
	Total black soil ...	69
Red soil ...	Clay	...
	Loam	15
	Sand	13
	Total red soil ...	28
Arenaceous ...	Loam	...
	Sand	2
	Heavy sand	1
	Total arenaceous ...	3

The standard grains were the same as for the principal division, except in the northern portion, where pedda jonna, varagoo and sazza were the dry crops taken. Experiments were 2,636 in number, and the grain-values ultimately adopted were (in Madras measures per acre)—

Soil.	Dry.					Wet.
	Jonna.	Pedda jonna.	Sazza.	Aroogoo.	Varagoo.	Paddy.
Permanently improved.	380 to 275	375 to 275	Same as pedda jonna.	650 to 450	575 to 425	1,000 to 850
Black ... Clay ...	340 to 133	325 to 105	Same as pedda jonna.	550 to 200	500 to 210	800 to 550
Black ... Loam ...	260 to 125	250 to 105	Same as pedda jonna.	425 to 200	425 to 200	850 to 650
Black ... Sand ...	185 to 90	175 to 75	Same as pedda jonna.	325 to 120	300 to 140	750 to 500
Red ... Clay ...	...	...	...	...	...	...
Red ... Loam ...	212 to 105	175 to 95	Same as pedda jonna.	325 to 160	300 to 160	800 to 625
Red ... Sand ...	166 to 90	140 to 70	Same as pedda jonna.	275 to 120	250 to 120	725 to 500
Arenaceous. Loam ...	...	...	120 to 100	250 to 225	200 to 175	725 to 650
Arenaceous. Sand ...	...	...	100 to 80	225 to 175	175 to 150	650 to 600
Arenaceous. Heavy sand.	...	...	80 to 60	175 to 120	150 to 100	600 to 500

Deductions were made in the same manner as in the principal division. Commutation prices were the same, varagoo and sazza being rated like paddy. Cultivation expenses for pedda jonna and sazza were much the same, sazza, however, being on the whole more inexpensively cultivated; for varagoo they were considerably higher. The cultivation expenses for wet land were the same as in the principal division; those for dry lands are subjoined:

Soil.	Varagoo.		Pedda jonna and sazza.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Permanently improved.	5 3 2	...	2 14 1	2 3 10
Black ... Clay ...	5 3 11	3 10 10	2 14 7	1 10 3
Black ... Loam ...	4 11 11	3 7 11	2 10 5	1 9 3
Black ... Sand ...	4 0 10	2 15 3	2 6 9	1 6 10
Red ... Loam ...	3 8 7	2 12 8	2 1 2	1 4 10
Red ... Sand ...	3 5 1	2 8 0	1 13 4	1 3 5
Arenaceous. Loam ...	2 6 1	2 4 11	1 6 9	1 6 3*
Arenaceous. Sand ...	2 4 6	2 1 8	1 6 3	1 4 8*
Arenaceous. Heavy sand ...	2 1 0	2 0 4	1 4 6	1 3 8*

* For sazza only.

The variety of dry crops taken as standards made the calculation of revenue-rates unusually intricate. It was necessary to assign assumed proportions of each crop to each class of soil, with proportionate cultivation expenses, &c. The revenue-rates, based as usual on half the net produce, came out as follows:—

Soil.	Wet.		Dry.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved	10 0	6 0	5 0	3 0
Black ... Clay	7 0	2 8	4 0	0 14
Black ... Loam	7 8	3 8	3 0	0 14
Black ... Sand	6 0	2 0	1 12	0 6
Red ... Loam	7 0	3 8	2 0	0 12
Red ... Sand	6 0	2 0	1 8	0 6
Arenaceous. Loam	6 0	4 0	1 4	1 0
Arenaceous. Sand	5 0	3 8	1 0	0 12
Arenaceous. Heavy sand ...	4 8	2 0	0 12	0 4

For the whole district, the immediate results of settlement were—

	RS.
Old assessment	17,49,491
New do.	19,18,106
Difference	1,68,615
Percentage	9·6
Cost	11,34,654
Percentage of return to cost	14·9

Full settlement rates have not yet been imposed. The present average wet and dry rates are Rupees 5-4-10 and Rupees 1-2-8 respectively. In 1875-76 there still remained annual increments to be made to the amount of a lakh and a quarter. It is estimated that a lakh and three-quarters more will be gained by extension of cultivation during the term of settlement, and an equal sum at revision, by adopting the Cuddapah commutation price for paddy.

The settlement expires in 1903-4 and 1904-5.

SALEM.

Area ... ... 7,729 *sq. miles.*
Population 1,599,595

PART of the Salem district came into the possession of the English in 1792, and the remainder in 1799. A field survey and assessment were made on ryotwarry principles, but were immediately followed by quinquennial leases, on the expiry of which the district was parcelled out into zemindarry estates, and sold to the highest bidders. The great majority of these estates, after unscrupulous rack-renting, ultimately reverted to the Government. In 1816, and again in 1818, reductions of assessment were ordered in those portions of the district where, owing to the breakdown of the zemindarry system, a ryotwarry settlement had been made. A more effectual means of relief was the operation of the "cowle rules," enabling ryots to take up, at favorable rates, lands which, on account of over-assessment, had been left uncultivated for ten years. The loss of revenue on this ground was one lakh in 1830. Percentage reductions were also made in 1855 and 1859.

The lowlands are watered by the Cauvery, but not extensively, as the river affects but a small area in this district.

Survey began in 1859, and the settlement scheme was submitted in October 1865, but was not finally sanctioned till September 1869. The new assessments were introduced from 1870-71 to 1873-74.

Seventy per cent. of the assessable area consists of red sandy soil. Divided into the lower or Carnatic talooks, and the upper talooks, or those in and above the eastern ghauts, the area of the district is classified as follows:—

Soil.	Percentage of area.	
	Lower talooks.	Upper talooks.
Permanently improved	2	1
Black... Clay	4	...
Black... Loam	7	12
Black... Sand	2	8
Total black ...	13	20
Red ... Clay	...	...
Red ... Loam	22	10
Red ... Sand	63	69
Total red ...	85	79

The survey added 15·3 per cent. to the occupied area as recorded in the revenue accounts. Standard crops were cholam, cumboo, and raggy for dry lands (but horse-gram for cholam in the upper talooks), and white paddy for wet lands. The upper talooks' grain-values differed from those of the lower talooks in the case of cumboo and raggy only. Horse-gram is not shown in the subjoined table, giving the grain-values in Madras measures per acre :

Soil.	Dry.			Wet.
	Cholam, cumboo, and raggy.	Cumboo in upper talooks.	Raggy in upper talooks.	White paddy.
Permanently improved ...	672 to 552	...	624 to 504	1,080 to 960
Black... Clay	408 to 216	288 to 192	432 to 240	720 to 288
Black... Loam	456 to 264	384 to 240	480 to 312	960 to 360
Black... Sand	336 to 216	288 to 192	408 to 240	720 to 360
Red ... Loam	408 to 192	288 to 168	432 to 216	840 to 360
Red ... Sand	336 to 192		408 to 216	720 to 280

These values were subject to a deduction, on dry lands only, of 15 per cent., rising to 20 per cent. in the upper talooks. The grain-values on red sandy soil were subsequently raised. Experiments were few—only 174 in the lower, and 233 in the upper talooks. Commutation prices, as originally proposed, were based on the price lists from 1821 to 1864, and were as follows, dry and wet grains indifferently :

	Per garce. RS. A. P.
Lower talooks	83 5 4
Upper do.	75 0 0

The Government ordered the average prices of 20 years to be taken (1845–1864), and after deducting 18 per cent. on dry, and 12 per cent. on wet grains, for cartage, merchant's profits, &c., the price finally adopted was an all-round one of Rupees 100 per garce.

Cultivation expenses were altered by the Government with the commutation rate. They are as under—

	RS. A. P.
Wet	10 14 0
Dry	5 12 0

These are for an acre of good black loam, whence rates for the other soils were deduced. They apply equally to upper and lower talooks. The net produce was subject to a deduction of 10 per cent. before it was halved to give the Government share.

The revenue-rates were the same for both upper and lower talooks, but the village grouping in the former was one grade lower. They are shown below :

Soil.	Dry.		Wet.	
	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved.	5 0	1 12	10 8	5 8
Black Clay ...	2 8	0 5	7 0	1 4
Black Loam ...	3 0	0 6	9 8	1 8
Black Sand ...	1 12	0 5	7 0	1 8
Red Loam ...	2 8	0 4	8 0	1 8
Red Sand ...	1 12	0 4	7 0	1 4

The immediate result of the settlement was as follows :

	RS.
Old assessment	18,26,265
New do.	16,56,904
Difference	1,69,361
Percentage	9·3
Cost	13,89,567
Per cent of return to cost	12·2

The settlement expires in 1900-1 and 1903-4. It is calculated that the occupation of waste will have added two lakhs to the revenue demand by that time, and that 1⅓ lakhs more can be made by raising the commutation price of paddy to the Cuddapah rate. But the first of these assumptions hardly seems to be warranted by the revenue history of the district since settlement.

TINNEVELLY.

Area ... ... 5,381 *sq. miles.*
Population ... ... 1,699,747.

A PORTION of the Tinnevelly district is watered by the Tambrapurny and its affluents, fifteen in number. The remainder is divided into the red soil tract at the foot of the hills, the black cotton plain, and the palmyra forest. The latter includes the coast line south of the river, and is 50 miles in length by 5 to 10 in breadth. It is a country of deep red sand, impassable for carts. Water is found in some places, where abundant crops of coarse plantains and other fruits and vegetables are produced. It was estimated that this tract contained five millions of grown and taxable trees, besides seedlings. The former system was one of triennial inspection and assessment of mature trees, in three grades, at different rates for almost every village, the general average being 5 pie per palm. The plan adopted at settlement was to take the existing tree-tax on each field and turn it into the nearest round figure, adding a charge for seedlings at the rate of 25 an anna, the sum being the assessment of the field for the whole settlement term of 30 years.

The district came under British rule in 1801. Till 1807 it was held on the amauny system, i.e., the crop was grown and divided under the immediate supervision of the revenue officers, and the Government share (one-half) was taken in kind. Triennial leases followed, and then decennial leases, to the villagers or to farmers. From 1822 to 1859 the ryotwarry system prevailed, with commutation prices annually varying, but always adjusted with reference to the standard prices framed on the first introduction of the system. Subsequently these original standard prices were adopted as permanent commutation prices, and applied to fixed grain-values, without distinction of soils, except such as was made by the people themselves, in distributing the lump assessment of the village.

Demarcation began in 1862, the survey was completed in 1872, and settlement (which was partly effected by the Collector) took place from 1873 to 1878. The area recorded as occupied was increased 6·9 per cent. by the survey.

Grain-values were calculated for wet lands in the river-irrigated tract only. No calculation was made for dry lands, the Salem rates being taken as a guide. The rates proposed for the river valley were subsequently extended to the entire district, but only the lower rates of the scale were applied in assessing the palmyra tract. Experiments were 256 in number, and consisted in reaping and threshing patches of half an acre. The standard crop was paddy, and the grain-values adopted were (in Madras measures per acre)—

Black soil... Loam	1,200 to 720
Black soil... Clay, Sand	960 to 480
Red soil ... Loam	1,080 to 600
Red soil ... Sand	960 to 480

Commutation prices, which had been calculated from the price lists of 1770–1868, were ordered by the local Government to be revised on the averages of 1845–1864, the resulting prices were found to be too high, and, omitting two famine years, the rate finally adopted was Rupees 108 per garce.

Cultivation expenses were estimated as follows per acre :—

—	Wet only.	
	Maximum.	Minimum.
	RS. A.	RS. A.
Black soil... Clay	13 4	9 4
Black soil... Loam	15 4	11 4
Black soil... Sand	13 4	9 4
Red soil ... Loam	14 4	10 4
Red soil ... Sand	13 4	9 4

After deducting 10 per cent. for unprofitable areas, half the net produce formed the basis of the revenue-rates. They were—

Soil.	Dry.		Wet.	
	Maximum.	Minimum	Maximum.	Minimum.
	RS. A.	RS. A.	RS. A.	RS. A.
Permanently improved	5 0	2 8	...	...
Black... Clay	1 8	0 6	9 0	2 0
Black... Loam	2 8	0 8	12 0	3 0
Black... Sand	1 0	0 4	9 0	2 0
Red ... Loam	1 8	0 6	10 8	2 8
Red ... Sand	1 0	0 3	9 0	2 0

Second-crop cultivation in this district is extensive, covering about one-half of the irrigated area. Before settlement, about three-fifths of the second-crop area paid double rates, and the remainder paid half as much again as single-crop lands. At the settlement, second-crop cultivation was compounded for at two-thirds to one-fourth in excess of single-crop rates, thus raising the highest wet-rate to Rupees 20.

The immediate results of settlement were as follows :—

	RS.
Old assessment ...	25,11,027
New do.	26,71,608
Difference	1,60,581
Percentage	6·4
Cost	16,08,246
Percentage of return to cost	10

The settlement expires in 1903, 1904, and 1908. By that time a revenue increase of about half a lakh is expected from extension of cultivation, and nearly three lakhs could be gained by adopting the Cuddapah commutation price for paddy.

TRICHINOPOLY.

Area ...	3,312 *sq. miles.*
Population ...	1,215,033.

The district of Trichinopoly is divided into the upland and the lowland talooks. The latter are irrigated from the Cauvery, the Amravatty, and other smaller streams. The upland talooks are an undulating plain of black cotton soil, broken by rocks and watercourses, and occasionally by low barren hills.

The first survey of the upland talooks was made in 1805-6, and the ryotwarry system was introduced in 1813-14; but no alteration was made in the existing rates of assessment, which had developed themselves during native rule, and are described as the most complicated that it is possible to conceive, varying not only with the soil, but also with the crop and the condition of the cultivator. Until 1826-27, the annual settlement was made with the headman of the village, leaving the ryots to distribute the demand among themselves. In that year puttas were given to the ryots for the first time, with the permission to relinquish lands they did not wish to cultivate. This permission was extensively made use of, and when, in 1833-34, the lands of revenue defaulters were first put up for sale, no purchasers could be found to take them.

In the lowland talooks settlement was made, on annexation, at 50 per cent. of the gross produce. The joint-rent system was tried from 1812-13 to 1821-22, after which the ryotwarry system came in, with a permanent reduction of 16 per cent. in the revenue demand.

Further reductions in both wet and dry rates throughout the district were made in 1854-55 and 1855-56. The circumstances of the district were thus described by the Board of Revenue in 1863 :—"An inland position; a shallow and comparatively poor soil; indifferent irrigation even as regards the Cauvery irrigated lands; a limited and very fluctuating market, and a barbarous revenue system, under which the taxation is based on the crop, and not on the land, and varies with every change of cultivation, and with the caste, and even residence, of the ryot. It is essentially a poonjah district, nine-tenths of its lands being under dry grain cultivation, and 52 per cent. of the culturable area consisting of the poorest clay and gravelly soils of the Carnatic." These proportions were not exactly borne out by the survey.

Survey began in 1858, and was finished before the close of 1861, but additional cultivation was measured up subsequently. The scheme for settlement was submitted in October 1860, but was not sanctioned till April 1864, and the new assessments were introduced in the revenue year 1864-65.

The classification of soils was as follows :—

—		Per cent. Wet.	Dry.
Permanently improved		0·3	4
Black soil	Clay	4·7	7·2
	Loam	5	12·1
	Sand	4·3	12
Red soi	Clay	...	...
	Loam	1·2	10
	Sand	0·5	38·7
		16	84
		100·0	

The cultivated area by the survey was 6½ per cent. in excess of that by the revenue accounts. Waste was 50 per cent. less, the hill tracts having been excluded from survey.

Grain-values were determined by actual experiment, but the number of experiments is not stated. They stood as follows for dry lands (in Madras measures per acre) :—

Soil class.		Dry lands. Cholam.	Cumboo.	Raggy.	Varagoo.
Permanently improved...		480 to 384	480	576 to 480	...
Black...	Clay	312 to 168	384 to 240	408 to 240	672 to 360
	Loam	312 to 192	480 to 240	528 to 240	672 to 360
	Sand	288 to 168	360 to 240	288 to 240	552 to 360
Red ...	Clay	240 to 192	288 to 240	288 to 240	432 to 360
	Loam	312 to 240	384 to 288	408 to 288	672 to 432
	Sand	240 to 168	288 to 240	288 to 240	432 to 360

The average for wet lands was 634 Madras measures of paddy; the details are—

Soil class.		Madras measures.
Permanently improved ...		1,080 to 960
Black...	Clay	840 to 432
	Loam	960 to 576
	Sand	720 to 432
Red ...	Clay	600 to 480
	Loam	720 to 312
	Sand	552 to 312

The dry grain-values were subject to a deduction of 20 per cent. for weather chances.

Commutation prices, calculated on the returns of nearly 60 years, after deductions for cartage and brokerage, stood as follows :—

	Per Madras measure. RS. A. P.
Paddy	66 10 8
Cholam	100 0 0
Cumboo	83 5 4
Raggy	83 5 4
Varagoo	50 0 0

Cultivation expenses were estimated as follows per acre :—

—	From RS. A. P.	To RS. A. P.
Paddy	7 8 0	3 0 0
Cholam	4 0 7	3 3 10
Cumboo	4 2 8	3 0 0
Raggy	4 0 7	3 3 10
Varagoo	4 14 6	3 3 10

The Government share, as directed by the Secretary of State, to whom the question was referred, was taken at "a moiety of the net produce, subject to a deduction of 10 per cent. for unprofitable portions of fields, of which the survey did not take account, &c." The maximum and minimum rates adopted were—

Soil.		Dry. Maximum. RS. A.	Dry. Minimum. RS. A.	Wet. Maximum. RS. A.	Wet. Minimum. RS. A.
Permanently improved ...		3 8	1 12	9 4	5 0
Black...	Clay	2 0	0 6	6 8	1 8
	Loam	2 12	0 8	7 8	2 0
	Sand	1 8	0 6	5 8	1 8
Red ...	Clay	1 0	0 8	4 8	2 0
	Loam	1 12	0 4	6 8	1 0
	Sand	1 0	0 4	4 8	1 0

The immediate results of the new assessments, when actually applied, were as follow :—

	RS.
Old assessment	16,11,492
New do.	14,86,800
Difference	1,24,692
Percentage	7·7
Cost	6,24,057
Percentage of return to cost	20

This large decrease is explained by the remarks of the Board in 1863 :—"The district in past years suffered much from inundations, drought, pestilence, and murrain, and was further depressed by excessive taxation on the land, to which partial relief was afforded at various times,

and last in 1855-56." The rates were in fact assimilated to those of the neighbouring and flourishing district of Tanjore, similarly situated in the valley of the Cauvery. The subsequent history of Trichinopoly has been one of prosperity, but the extension of cultivation has not made up for the revenue surrendered. The revenue collections of 1877-78 were Rupees 14,06,516, with an average wet-rate of Rupees 4-2-10 and dry-rate of Rupees 0-15-0. The collections include Rupees 1,06,727 from casual second-crop cultivation, besides what has been permanently compounded for at one-third and one-fourth above single-crop rates.

Arable waste is 25 per cent. of the whole assessable area. The present irrigation percentage is 14·3. The average ryot's holding is 6·9 acres, assessed at Rupees 9-9-11. Extension of cultivation is expected to add Rupees 88,499 to the revenue demand by the expiry of the term of settlement. It is also computed that by raising the rates on lands supplied by baling from river-channels, and by adopting the Cuddapah commutation price for paddy (Rupees 126 per garce), the revenue can be increased to two or three lakhs above the figures of the year next before settlement (1863). The settlement expires in 1894-95.

APPENDIX No. LXIII.

LIST OF REGISTRARS' AND SUB-REGISTRARS' STATIONS IN THE DIFFERENT DISTRICTS.

NOTE.—*The first station in each case is that of a Registrar, and the remainder are those of Sub-Registrars.*

North Arcot District.

Chittore (Chittúru, *Tel.* Chittoor *).
Tripatty (Tiruppathi, *Tel.* Tirupati *).
Pulmanair (Palamanéri, *Tam.* Palmanér *).
Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam *).
Vellore * (Vélúr, *Tam.*).
Poloor (Pólúru, *Tam.* Pólúr *).
Wandiwash * (Vandavási, *Tam.*).
Arcot * (Árkkádu, *Tam.*).
Wallajahpett (Válásáppéttai, *Tam.* Wálajápet *).
Arnee (Árani, *Tam.* Árni *).
Calastry (Kálahasti,* *Tel.*).
Puttoor (Pattúr, *Tam.* Patúr *).
Trittany (Tiruttani, *Tam.* Tirutani *).
Cungoondy (Kangundi,* *Tel.*).
Poonganore (Punganúru, *Tel.* Punganúr *).
Maderpauk (Mátharppákkam, *Tam.*).
Arconum (Árkkónam, *Tam.* Arkónam *).

South Arcot District.

Cuddalore * (Kúdalúr, *Tam.*).
Tindivanam * (*Tam.*).
Mercaunum (Marakkánam, *Tam.*).
Jinjee (Sheñji, *Tam.* Gingee *).
Trinomallee (Tiruvannámalai,* *Tam.*).
Chengam * (Shengam, *Tam.*).
Villoopooram (Villuppuram, *Tam.* Villupuram *).
Vaunore (Vánúr, *Tam.*).
Ooloondoorpett (Ulundúrppéttai, *Tam.* Ulundurpet *).
Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr *).
Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *).
Panrooty (Pannurutti, *Tam.* Panruti *).
Chidambaram * (Shithambaram, *Tam.*).
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).
Cullacoorchy (Kallakkuriççi, *Tam.* Kallakurchi *).

Bellary and Anantapore Districts.

Bellary * (Ballári, *Tel.*).
Siroogooppa (Shiruguppa, *Tel.* Siruguppa *).
Hospett (Hosapéte, *Can.* Hospet *).
Cumply (Kampali, *Tel.* Kampli *).
Coodligy (Kúdligi,* *Tel.*).
Hoovinhadgally (Húvinahadagalli, *Can.* Huvinahadgalli *).
Hurpanhully (Harapanahalli, *Can.* Harpanahalli *).
Auloor (Álúru, *Tel.* Álúr *).
Adony (Ádaváni, *Tel.* Ádóni *).
Gooty * (Gutti, *Tel.*).
Ooravacondah (Uravakonda,* *Tel.*).
Tadpatry (Tádiparti, *Tel.* Tadpatri *).
Royadroog (Ráyadurgamu, *Tel.* Ráyadrug *).
Anantapore (Anantapuramu, *Tel.* Anantapur *).
Dharmavaram * (Dharmavaramu, *Tel.*).
Calyaundroog (Kalyánadurgamu, *Tel.* Kalyándrúg *).
Penoocondah (Penukonda,* *Tel.*).
Bookkapatam (Bukkapatnamu, *Tel.* Bukkapatnam *).
Hindoopore (Hindupuramu, *Tel.* Hindupur *).
Madaksira (Madakasíra,* *Can.*).
Yemmiganore (Yemmiganúru, *Tel.* Yemmiganúr *).

Calicut District.

Calicut * (Kozhikkóta, *Mal.*).
Vythery (Vaittiri, *Mal.* Vayitri *).
Chevayoor (Chéváyyúra, *Mal.* Chevayur *).
Munjery (Manchéri, *Mal.* Manjeri *).
Condotty (Kondótti,* *Mal.*).
Tiroorangaudy (Tirúrannáti, *Mal.* Tirurangádi *).
Ponnany (Ponnáni, *Mal.* Ponáni *).
Vetatapoodiyangaudy (Vettattaputiyannáti, *Mal.* Vetatapudiyangádi *).
Tirtaula (Trattála, *Mal.*).

Calicut District—(Continued).

Chowghaut (Chávakkátu, *Mal.* Chávakád *).
Tripriar (Tirupráyár, *Mal.*).
Palghaut (Pálakkátu, *Mal.* Pálghat *).
Coodivayaur (Kutiváyára, *Mal.*).
Alatore (Álattúra, *Mal.* Álatúr *).
Mangara (Mankara, *Mal.*).
Perindalman (Perintalmana, *Mal.*).
Munnarghaut (Mannárakkátu, *Mal.* Mannárghat *).
Cherpalcherry (Cherppullashshéri, *Mal.* Cherpalcheri *).
Cochin * (Koççi, *Mal.*).
Anjengo * (Anchinnal, *Mal.*).
Tungacherry (Tankaççéri, *Mal.* Tangachéri *).
Tambracherry (Támraççéri, *Mal.* Támrachéri *).
Malapooram (Malappuram, *Mal.* Malapuram *).
Vandoor (Vantúra, *Mal.* Wandúr *).
Andattody (Antattóti, *Mal.*).
Tannore (Tándiyúr, *Mal.* Tánúr *).

South Canara District.

Mangalore * (Mangalúru, *Can.*).
Buntwaul (Bantvála, *Can.* Bantvál *).
Oodipy (Udipi,* *Can.*).
Caurcal (Kárkala, *Can.*).
Coondapore (Kundápura, *Can.* Coondapoor *).
Cassergode (Kásaragódu, *Can.* Kásaragód *).
Hosdroog (Hosadurga, *Can.*).
Vittal (Vitla, *Can.*).
Ooppinangady (Uppinangadi,* *Can.*).
Beltanguddy (Beltangadi, *Can.*).
Manjeshwar (Manjéshvara, *Can.*).
Moolky (Múlki, *Can.*).
Brahmahwar (Brahmávara, *Can.*).

Chingleput District.

Sydapett (Shaithháppéttai, *Tam.* Saidápet *).
Poonamallee * (Púvirundamalli, *Tam.*).
Chingleput * (Shengalppattu, *Tam.*).
Madrantacam (Mathurándagam, *Tam.* Madurántakam*).
Ootramallore (Uttiranmérúr, *Tam.*).
Conjeeveram * (Káñjíppuram, *Tam.*).
Shreepermatore (Shirípperumbúthúr, *Tam.* Sríperumbudur *).
Trivellore (Tiruvallúr,* *Tam.*).
Suttivaid (Shattiyavédu, *Tam.*).
Ponnairy (Ponnéri,* *Tam.*).

Coimbatore District.

Coimbatore * (Kóyamuttúr, *Tam.*).
Peroondoray (Perundurai,* *Tam.*).
Suttimungalam * (Shattiyamangalam, *Tam.* Satyamangalam).
Collegaul (Kollégálam, *Tam.* Kollegál *).
Pollachy (Polláççi, *Tam.* Polláchi *).
Erode * (Íródu, *Tam.*).
Bhawany (Paváni, *Tam.* Bhaváni *).
Pulladam (Palladam,* *Tam.*).
Avanashy (Avanási, *Tam.* Avanáshi *).
Caroor (Karúr,* *Tam.*).
Aravacoorchy (Aravakkuriççi, *Tam.* Aravakurchi *).
Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *).
Dharaupooram (Tárāppuram, *Tam.* Dhárápuram *).
Caungyam (Kángayam, *Tam.* Kángyam *).
Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam *).
Gopichettipolliem (Kóppisettippálaiyam, *Tam.*).
Shoolore (Shúlúr, *Tam.* Súlúr *).

Cuddapah District.

Cuddapah * (Kadapa, *Tel.*).
Proddootore (Proddutúru, *Tel.* Proddutur *).
Jummalmudoogoo (Jammalamadugu,* *Tel.*).
Poolivendla (Pulivendala, *Tel.* Pulivendla *).
Kadiry (Kadiri,* *Tel.*).

Cuddapah District—(Continued).

Madanapully (Madanapalle,* *Tel.*).
Voilpaud (Váyalpádu, *Tel.* Váyalpád *).
Peelair (Pîléru, *Tel.* Pîlér *).
Royachoty (Ráyatsóti, *Tel.* Ráyachóti*).
Poollampett (Pullampéta, *Tel.* Pullampet *).
Chitwail (Chitvélu, *Tel.* Chitvél *).
Sidhout (Siddhavattamu, *Tel.* Siddhavattam*).
Budwail (Badvélu, *Tel.* Badvél*).

Ganjam District.

Chetterpore (Chhatrapuramu, *Tel.* Chatrapur *).
Goomsoor (Ghumsará, *Tel.* Goomsur *).
Aska * (Ashiká, *Tel.*).
Poorooshottapore (Purushóttapuramu, *Tel.* Purushottapur *).
Berhampore * (Brahmapuramu, *Tel.*).
Ichapore (Içcápuramu, *Tel.* Ichápur *).
Tekkaly (Tekkali,* *Tel.*).
Narsannapett (Narasannapéta, *Tel.* Narsannapet *).
Chicacole * (Shríkákulamu, *Tel.*).
Parlakimedy (Parlákimedi,* *Tel.*).

Godavery District.

Cocanada * (Kákináda, *Tel.*).
Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram*).
Alamore (Alamúru, *Tel.*).
Amalaupooram (Amalápuramu, *Tel.* Amalápuram*).
Cottapettah (Kottapéta, *Tel.*).
Narsapore (Narasápuramu, *Tel.* Narsápur *).
Shivacode (Shivakódu, *Tel.*).
Tanookoo (Tanuku,* *Tel.*).
Pentapaud (Pentapádu, *Tel.*).
Bheemavaram (Bhímavaramu, *Tel.* Bhímavaram *).
Rajahmundry * (Rájamahéndravaramu, *Tel.*).
Peddapore (Peddapuramu, *Tel.* Peddápuram*).
Prattipaud (Prattipádu, *Tel.*).
Ellore * (Ellúru, *Tel.*).
Yernagoodem (Yernagúdemu, *Tel.* Yernagúdem*).
Pittapore (Pit'hápuramu, *Tel.* Pithápuram*).
Coringa * (Kórangi, *Tel.*).
Toony (Tuni,* *Tel.*).
Chintalapoody (Chintalapúdi, *Tel.*).

Kistna District.

Masulipatam * (Machilípatnamu, *Tel.*).
Goodivauda (Gudiváda,* *Tel.*).
Bezwada (Bedzaváda, *Tel.* Bezváda *).
Nundigauma (Nandigáma,* *Tel.*).
Juggayapett (Jaggayyapéta, *Tel.* Jaggayapet *).
Goontoor (Guntúru, *Tel.* Guntúr *).
Repully (Répalle,* *Tel.*).
Tenally (Tenáli, *Tel.*).
Baupatla (Bápatla,* *Tel.*).
Ponnoor (Ponnúru, *Tel.*).
Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet *).
Vinoocondah (Vinukonda,* *Tel.*).
Dauchepully (Dáchépalle, *Tel.* Dáchepalle *).
Toomaracote (Tumarakóta, *Tel.*).
Sattenapully (Sattenapalle,* *Tel.*).
Noozveed (Nújivídu, *Tel.* Núzvid *).

Kurnool District.

Kurnool * (Karnúlu, *Tel.*).
Atmacore (Atmakúru, *Tel.* Atmakúr *).
Nundicotcore (Nandikótukúru, *Tel.* Nandikótkur *).
Callwa (Kálava, *Tel.*).
Nundiaul (Nandyála, *Tel.* Nandyál *).
Putticondah (Pattikonda,* *Tel.*).
Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla *).
Sirwail (Chiruvella, *Tel.* Sirvel *).
Cumbum * (Kambhamu, *Tel.*).
Marcapore (Márkápuramu, *Tel.* Márkápur *).
Pyaupaly (Pyápali,* *Tel.*).
Giddalore (Giddalúru, *Tel.*).
Owk * (Auku, *Tel.*).
Ramalcottah (Rámallakóta, *Tel.* Rámallakót *).

Madras District.

Madras * (Shennappattanam, *Tam.*).
Mount Road.

Madura District.

Madura * (Mathurai, *Tam.*).
Sholavandaun (Shózhavandán, *Tam.* Sholavandán *).
Tiroomungalam (Tirumangalam,* *Tam.*).
Oosilamputty (Usilambatti, *Tam.*).
Mailoor (Mélúr, *Tam.* Melúr *).
Dindigul * (Tindukkal, *Tam.*).
Nilacottah (Nilakkóttai, *Tam.*).

Madura District—(Continued).

Vedasundoor (Védasandúr, *Tam.*).
Periyacoolam (Periyakkulam, *Tam.* Periyakulam *).
Chinnammanore (Shinnammanúr, *Tam.* Chinnammanúr *).
Pulney (Pazhani, *Tam.* Palni *).
Shivagunga (Shivakkangai, *Tam.* Sivaganga *).
Tripatore (Tiruppattúr, *Tam.*).
Ramnaud (Rámanáthappuram, *Tam.* Ramnad *).
Moothoocoolatore (Muthukkulattúr, *Tam.* Mutukulatúr *).
Tirooshooly (Tiruççuzhi, *Tam.* Tirushuli *).
Trivathauny (Tiruvádánai, *Tam.*).
Paumben (Pámban,* *Tam.*).
Kodaykarnal (Kodikkánal, *Tam.* Kodaikánal *).
Tallacoolam (Tallákkulam, *Tam.*).
Tirooparacoondram (Tirupparangunram, *Tam.* Tiruparankundram *).
Aroopoocottah (Aruppukkóttai, *Tam.* Aruppukóta *).

Neilgherry District.

Ootacamund * (Ottagaimandu, *Tam.*).
Goodalore (Kúdalúr, *Tam.* Gúdalúr *).
Coonoor * (Kunnúr, *Tam.*).

Nellore District.

Nellore * (Nellúru, *Tel.*).
Sooloorpett (Súlúrupéta, *Tel.*).
Vencatagherry (Venkatagiri,* *Tel.*).
Goodoor (Gúdúru, *Tel.* Gúdúr *).
Raupore (Rápúru, *Tel.* Rápúr *).
Atmacore (Atmakúru, *Tel.* Atmakúr *).
Cauvaly (Kávali,* *Tel.*).
Oodayagherry (Udayagiri,* *Tel.*).
Cundoocore (Kandukúru, *Tel.* Kandukúr *).
Canigherry (Kanigiri,* *Tel.*).
Ongole * (Vangólu, *Tel.*).
Addanky (Addanki,* *Tel.*).
Podily (Podile, *Tel.* Podili *).
Darshy (Darishi, *Tel.* Darsi *).
Alloor (Allúru, *Tel.* Allúr *).
Cottapatam (Kottapatnamu, *Tel.* Kottapatam *).

Salem District.

Salem * (Shélam, *Tam.*).
Ahtoor (Attúr, *Tam.* Atúr *).
Namcull (Námakkal, *Tam.* Námakal *).
Paramatty (Paramatti, *Tam.*).
Trichengode (Tiruççengódu, *Tam.* Tiruchengód *).
Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug *).
Razipore (Rásippuram, *Tam.*).
Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *).
Pennagaram (Pennágaram, *Tam.*).
Oossoor (Hosúru, *Can.* Hosúr *).
Dencanicottah (Tenganikkóttai, *Tam.* Denkanikóta *).
Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *).
Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).
Vaniyambaudy (Vániyambádi,* *Tam.*).
Ootancaray (Úttangarai, *Tam.* Úttankarai *).
Shevaroy Hills * (Shérvaráyanmalai, *Tam.*).

Tanjore District.

Tanjore * (Tañjávúr, *Tam.*).
Trivaudy (Tiruváthi, *Tam.* Tiruvádi *).
Vullam (Vallam,* *Tam.*).
Combaconam (Kumbagónam, *Tam.* Kumbakónam *).
Madyarjoon (Mattiyárççunam, *Tam.*).
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).
Puttoocottah (Pattukkóttai, *Tam.* Patukóta *).
Arantaungy (Arandángi, *Tam.* Arantángi *).
Tranquebar * (Tarangambádi, *Tam.*).
Shiyally (Shiyyázhi, *Tam.* Shiyáli *).
Mayavaram (Máyavaram,* *Tam.*).
Nunnilam (Nannilam,* *Tam.*).
Negapatam * (Nágappattanam, *Tam.*).
Tiroovalore (Tiruválúr,* *Tam.*).
Tritrapoondy (Tiruttaruppúndi, *Tam.* Tirutur aipúndi *).
Vedaranyam (Véthâraniyam, *Tam.*).
Valangimaun (Valangimán, *Tam.*).
Sawmymullay (Shuvámimalai, *Tam.*).
Peralam (Péralam, *Tam.*).
Tiroocauttoopully (Tirukkáttuppalli, *Tam.*).
Tiroopoondy (Tiruppúndi, *Tam.*).

Tellicherry District.

Tellicherry * (Talashsheri, *Mal.*).
Taliparamba * (Talipparamba, *Mal.*).

Tellicherry District—(Continued).

Cannanore * (Kannúra, *Mal.*).
Anjarcundy (Ancharakkanti, *Mal.*).
Cootaparamba (Kúttaparamba,* *Mal.*).
Badagara * (Vatakara, *Mal.*).
Nadapooram (Nátáppuram, *Mal.*).
Quilandy (Koyilánti, *Mal.* Quilandi *).
Payoly (Payyóli, *Mal.* Payóli *).
Manantoddy * (Mánantóti, *Mal.*).
Payyangaudy (Pazhayannáti, *Mal.*).
Coottiyaudy (Kuttiyáti, *Mal.* Kuttiyádi *).
Nauttoovanore (Náttuvánúr, *Mal.*).
Paunoor (Pánúr, *Mal.*).

Tinnevelly District.

Tinnevelly * (Tirunelvéli, *Tam.*).
Palamcottah * (Pálaiyangóttai, *Tam.*).
Morpanaud (Murappanádu, *Tam.*).
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).
Shermadevy (Shérmáthévi, *Tam.* Shermádevi *).
Tencausy (Tengási, *Tam.* Tenkási *).
Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *).
Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur *).
Watrap (Varttiráyiruppu, *Tam.* Vartiráyiruppu*).
Shautore (Sháttúr, *Tam.* Sátúr *).
Viroothooputty (Viruthuppatti, *Tam.* Virudupati *).
Ottapidauram (Óttappidáram, *Tam.* Otapidáram *).
Tuticorin * (Túttukkudi, *Tam.*).
Vilauticoolam (Viláttikkulam, *Tam.* Vilátikulam *).
Cayataur (Kaittár, *Tam.* Kayatár *).
Tencaray (Tengarai, *Tam.* Tenkarai *).
Alwar Tiroonagary (Ázhvárttirunagiri, *Tam.* Álvár Tirunagari *).
Trichendore (Tiruççendúr, *Tam.* Tiruchendúr *).

Tinnevelly District—(Continued).

Shatauncoolam (Sháttángulam, *Tam.* Sátánkulam *).
Nangoonairy (Nángúnéri, *Tam.* Nánguneri *).
Radhaupooram (Ráthappuram, *Tam.* Rádhápuram *).
Shivacausy (Shivakkási, *Tam.* Sivakási *).
Pettah (Péttai, *Tam.*).
Cadayam (Kadaiyam, *Tam.*).

Trichinopoly District.

Trichinopoly * (Tiruççináppalli, *Tam.*).
Shreerungam (Shirírangam, *Tam.* Sríraugam *).
Laulgoody (Lálukkudi, *Tam.* Lálgudi *).
Toorayore (Turaiyúr, *Tam.*).
Coolitalay (Kulittalai, *Tam.* Kulitalai *).
Manapauray (Manappárai, *Tam.* Manapárai *).
Jayancondacholapooram (Shayangondasólappuram, *Tam.* Jayankondacholapuram *).
Perambalore (Perambalúr,* *Tam.*).
Ariyaloor (Ariyalúr, * *Tam.*).

Vizagapatam District.

Vizagapatam * (Vishákhapatnamu, *Tel.*).
Yellamanchily (Yallamanchili, *Tel.*).
Narsapatam (Narasapatnamu, *Tel.* Narsapatnam *).
Ankapully (Anakápalle *).
Bimlipatam * (Bhímunipatnamu, *Tel.*).
Vizianagram * (Vijayanagaramu, *Tel.*).
Saulore (Sálúru, *Tel.* Sálúr *).
Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar *).
Parvatipore (Párvatípuramu, *Tel.* Párvatipur *).
Cheepoorpully (Chípurupalle, * *Tel.*).
Palcondah (Pálakonda, *Tel.* Pálkonda *).
Veeravilly (Víravilli, *Tel.*).
Srungavarapoocote (Shringavarapukóta, *Tel.*).
Bobbily (Bobbili, * *Tel.*).

APPENDIX No. LXIV.

LISTS CONNECTED WITH THE MARINE DEPARTMENT.

(1) *List of Ports for the landing and shipment of goods arranged from east to west.*

Districts, &c. where beginning.	Names of ports and sub-ports.
Ganjam ...	Ganjam* (Ganjámu, *Tel.*).
	Gopalpore (Gópálapuramu, *Tel.* Gopálpur*).
	Sonapore (Sonnápuramu, *Tel.*).
	Barwah (Báruva,* *Tel.*).
	Poondy (Púndi,* *Tel.*).
	Bapanapaud (Bápanapádu, *Tel.*).
	Calingapatam* (Kalingapatnamu, *Tel.*).
Vizagapatam.	Conauda (Kónáda, *Tel.*). *No trade.*
	Bimlipatam* (Bhímunipatnamu, *Tel.*).
	Vizagapatam* (Vishákhapatnamu, *Tel.*).
	Poodimadaca (Púdimadaka, *Tel.*).
	Pentacote (Pentakóta, *Tel.*).
Godavery.	Ooppauda (Uppáda, *Tel.*). *No trade.*
	Cocanada* (Kákináda, *Tel.*).
	Coringa* (Kórangi, *Tel.*).
	Yanam (Yánámu, *Tel.*). *Foreign territory.*
	Bendamoorlunka (Bandamúrlanka, *Tel.*). *No trade.*
	Narsapore (Narasápuramu, *Tel.* Narsápur*).
	Peroopollem (Perupálayamu, *Tel.*).
Kistna ...	Masulipatam* (Machilípatnamu, *Tel.*).
	Cottapollem (Kottapálayamu, *Tel.*).
	Nagayalunka (Nágayalanka, *Tel.*).
	Nizampatam (Nijámupatnamu, *Tel.*).
	Gungaudipollem (Gangádipálayamu, *Tel.*).
	Penoomoody (Penumudi, *Tel.*).
	Mortota (Mórtóta, *Tel.*).
	Bodwaunypollem (Bóduvánipálayamu, *Tel.*). *No trade.*
	Eepoorpollem (Ípurupálayamu,* *Tel.* Ipurupalem).
	Motoopully (Mótupalle, *Tel.*).
Nellore ...	Cottapatam (Kottapatnamu, *Tel.* Kottapatam*).
	Eetamookkala (Ítamukkala, *Tel.*).
	Paucala (Pákala,* *Tel.*).
	Ramapatam (Rámayyapatnamu, *Tel.*).
	Chennayapollem (Chennayyapálayamu, *Tel.*).
	Toommalapenta (Tummalapenta,* *Tel.*).
	Zoovauladinney (Dzuvváladinne, *Tel.*).
	Iskapully (Iskapalle,* *Tel.*).
	Ponnapoody (Ponnapúdi, *Tel.*).
	Meipaud (Maipádu, *Tel.*).
	Kistnapatam* (Krishnápatnamu, *Tel.*).
	Canoopurty (Kanuparti,* *Tel.*). *No trade.*
	Pamanjy (Pámanji, *Tel.*).
	Toopily (Túpili, *Tel.*).
	Doogarazpatam (Dugarádzupatnamu, *Tel.* Dugarázpatnam*).
	Poody (Púdi,* *Tel.*). *No trade.*
Madras ...	Madras* (Shennappattanam, *Tam.*).
Chingleput .	Poolicat (Pazhavérkkádu, *Tam.* Pulicat*). *No trade.*
	Ennore (Kattivákkam, *Tam.*). *No trade.*
	Covelong (Kóvalam, *Tam.*). *No trade.*
South Arcot.	Mercaunum (Marakkánam, *Tam.*). *No trade.*
	Pondicherry (Puthuççéri, *Tam.*). *Foreign territory.*
	Cuddalore* (Kúdalúr, *Tam.*).
	Porto Novo* (Parangippéttai, *Tam.*).
Tanjore ...	Codiampolliem (Kodiyambálaiyam, *Tam.*).
	Trimalvausal (Tirumalavásal, *Tam.*).
	Tranquebar* (Tarangambádi, *Tam.*).
	Caricaul (Káraikkál, *Tam.*). *Foreign territory.*
Tanjore—(*Contd.*).	Nagore* (Nágúr, *Tam.*).
	Negapatam* (Nágappattanam, *Tam.*).
	Vailangauny (Vélángáni, *Tam.*).
	Topootoray (Tópputtorai, *Tam.*).
	Point Calimere* (Kalimiyármunai, *Tam.*).
	Moottoopett (Muttuppéttai, *Tam.* Mutúpet*).
	Adiramputnam (Athirámbattanam, *Tam.* Adirámpatnam*).
	Krishnajeeputnam (Kiruttinásippattanam, *Tam.*).
	Cauttoomanvady (Káttumávadi, *Tam.*).
	Ammaputnam (Ammáppattanam, *Tam.*).
	Cottapatam (Kọttáppattanam, *Tam.*).
	Gopaulputnam (Kóppálappattanam, *Tam.*).
	Soondrapandyaputnam (Shundarappándiyappattanam, *Tam.*).
Madura ...	Pausiputnam (Pásippattanam, *Tam.*). *No trade.*
	Damotharaputnam (Támótharappattanam, *Tam.*).
	Tondy (Tondi,* *Tam.*).
	Numbidalay (Nambithálai, *Tam.*). *No trade.*
	Poothooputnam (Puthuppattanam, *Tam.*). *No trade.*
	Caurangaud (Kárangádu, *Tam.*). *No trade.*
	Tiroopalancoody (Tiruppálangudi, *Tam.*). *No trade.*
	Deviputnam (Tévippattanam, *Tam.*).
	Moodiapatam (Mudiyanbattanam, *Tam.*). *No trade.*
	Attangaray (Áttangarai, *Tam.*). *No trade.*
	Pillaymadam (Pillaimadam, *Tam.*). *No trade.*
	Yemanangoondoo (Emanangundu, *Tam.*). *No trade.*
	Paumben (Pámban,* *Tam.*).
	Rameswaram (Rámésuvaram, *Tam.* Rámesvaram*). *No trade.*
	Mantapam (Mandabam, *Tam.*).
	Vedaulay (Védálai, *Tam.*). *No trade.*
	Marcaputnam (Marakkáppattanam, *Tam.*). *No trade.*
	Moottoopett (Muttuppéttai, *Tam.*). *No trade.*
	Keelakaray (Kízhakkarai, *Tam.* Kílakarai*).
	Yeroovaudy (Eruvádi, *Tam.*). *No trade.*
	Vaulinokkam (Válinokkam, *Tam.*). *No trade.*
Tinnevelly.	Veippaur (Vaippáru, *Tam.* Vaippár*). *No trade.*
	Tuticorin* (Túttukkudi, *Tam.*).
	Cauyalputnam (Káyalppattanam, *Tam.* Káyalpatnam *).
Travancore.	Colachel (Kolláççal, *Mal.*).
	Vilinjam (Vilincham, *Mal.*)
	Anjengo* (Anchinnal, *Mal.*).
	Paravoor (Paravúr, *Mal.*).
	Quilon* (Kollam, *Mal.*).
	Poracaud (Porakkátu, *Mal.*).
	Alleppey (Álappuzha, *Mal.*).
	Cautoor (Káttúra, *Mal.*)
	Caracoolam (Karakkulam, *Mal.*).
	Manacoody (Manakkuti, *Mal.*).
	Manacodam (Manakotam, *Mal.*).
	Paliport (Pallippuram, *Mal.*)
	Putnam (Pattanam, *Mal.*).
	Poovaur (Púvár, *Mal.*).

List of Ports for the landing and shipment of goods, &c.—(Continued).

Districts, &c. where beginning.	Names of ports and sub-ports.
Travancore —(*Contd.*).	Poondoray (Púntura, *Mal*.).
	Rajaucamungalam (Rájákkamangalam, *Mal*.).
Cochin ...	Naracal (Nárakkal, *Mal*.).
	Maliyapooram (Maliyappuram, *Mal*.).
Malabar ...	Coolashekharaputnam (Kulashekharappattanam, *Tam*.).
	Cochin* (Koççi, *Mal*.).
	Attoopooram (Attuppuram, *Mal*.). *No trade.*
	Maudye (Mátáyi, *Mal*.). *No trade.*
	Coorcooy (Kurkkuzhi, *Mal*.). *No trade.*
	Attacooy (Attakkuzhi, *Mal*.). *No trade.*
	Chowghaut (Chávakkátu, *Mal*. Chávakád*).
	Velliangode (Veliyannótu, *Mal*.). *No trade.*
	Ponnany (Ponnáni, *Mal*. Ponáni *).
	Cootye (Kúttázhi, *Mal*.). *No trade.*
	Paravanna (*Mal*.).
	Tannore (Tándiyúr, *Mal*. Tánúr *).
	Parpanangaudy (Parappanannáti, *Mal*. Parpanangádi.*) *No trade.*
	Cadaloondy (Kadalunti, *Mal*.). *No trade.*
	Beypore* (Béppúra, *Mal*.).
	Molancadavoo (Molankatavu, *Mal*.). *No trade.*
	Calicut* (Kozhikkóta, *Mal*.).
	Poodiyangaudy (Putiyannáti, *Mal*.). *No trade.*
	Yelattore (Elattúr, *Mal*.). *No trade.*
	Cauputt (Káppatta, *Mal*.). *No trade.*
	Quilandy (Koyilánti, *Mal*. Quilandi*).
	Collam (Kollam, *Mal*.). *No trade.*
	Goodaloor (Kudalúra, *Tam*.). *No trade.*
	Triccody (Trikkóti, *Mal*.). *No trade.*
	Cotacal (Kóttakkal, *Mal*.). *No trade.*
	Badagara* (Vatakara, *Mal*.).
	Moottoongal (Muttunkal, *Mal*.). *No trade.*
	Chombye (Chompáyi, *Mal*.). *No trade.*

Districts, &c. where beginning.	Names of ports and sub-ports.
Malabar— (*Contd.*).	Cullye (Kalláyi, *Mal*.).
	Mahé (Mayyazhi, *Mal*.). *Foreign territory.*
	Tellicherry* (Talashsheri, *Mal*.).
	Talye (Taláyi, *Mal*.). *No trade.*
	Dharmapatam (Tarmmapattanam, *Mal*.). *No trade.*
	Yezhara (Ezhara, *Mal*.). *No trade.*
	Cannanore* (Kannúra, *Mal*.).
	Poodiyangaudy (Putiyannáti, *Mal*.). *No trade.*
	Belliapatam (Baliyappattanam, *Mal*.). *No trade.*
	Yetticoolam (Ettikkulam, *Mal*.). *No trade.*
	Cavvye (Kavváyi,* *Mal*.). *No trade.*
	Cautacacherry (Kátakkaççéri, *Mal*.).
South Canara.	Beycull (Békal, *Can*.). *No trade.*
	Cassergode (Kásaragódu, *Can*. Kásaragód*).
	Coombla (Kumbale, *Can*.).
	Manjeshwar (Manjéshvara, *Can*.).
	Mangalore* (Mangalúru, *Can*.).
	Moolky (Múlki, *Can*.).
	Padoobidry (Padubidri, *Can*.). *No trade.*
	Yermaul (Yarmála, *Can*.). *No trade.*
	Ootchila (Uççila, *Can*.). *No trade.*
	Caup (Káp, *Can*.). *No trade.*
	Oodiyauvar (Udiyávara, *Can*.). *No trade.*
	Oodipy (Udipi,* *Can*.).
	Malpe (*Can*.). *No trade.*
	Barcore or Hangarcutta (Bárkúru, *Can*. Bárkúr* or Hangárakatte, *Can*.).
	Coondapore (Kundápura, *Can*. Coondapoor*).
	Naickancuttey (Náikanakatte, *Can*.).
	Beidoor (Baidúru, *Can*.).
	Shiroor (Shirúru, *Can*.).

(2) *Port dues of out-ports, arranged according to the amounts.*

Ports.	Port dues.	Percentage.
	RS.	
Cochin* (Koççi, *Mal*.)	36,035	19·16
Tuticorin* (Túttukkudi, *Tam*.) ...	27,463	14·60
Cocanada* (Kákináda, *Tel*.)	21,316	11·33
Negapatam* (Nágappattanam, *Tam*.) ...	15,679	8·33
Calicut* (Kozhikkóta, *Mal*.)	15,676	8·33
Gopalpore (Gópálapuramu, *Tel*. Gopálpur*)	14,761	7·85
Mangalore* (Mangalúru, *Can*.) ...	9,139	4·86
Tellicherry* (Talashsheri, *Mal*.) ...	5,107	2·71
Bimlipatam* (Bhímunipatnamu, *Tel*.) .	4,990	2·65
Cannanore* (Kannúra, *Mal*.)	4,364	2·32
Beypore* (Béppúra, *Mal*.)	4,269	2·27
Vizagapatam* (Vishákhapatnamu, *Tel*.).	4,057	2·15
Calingapatam* (Kalingapatnamu, *Tel*.).	3,933	2·09
Paumben (Pámban,* *Tam*.)	2,612	1·38
Masulipatam* (Machilípatnamu, *Tel*.)...	2,399	1·27
Cuddalore* (Kúdalúr, *Tam*.)	2,116	1·12
Badagara* (Vatakara, *Mal*.)	1,630	·86
Barwah (Báruva,* *Tel*.)	1,284	·68
Ponnany (Ponnáni, *Mal*. Ponáni *) ...	1,202	·63
Keelakaray (Kízhakkarai, *Tam*. Kílakarai *)	995	·52
Tondy (Tondi,* *Tam*.)	780	·41
Nagore* (Nágúr, *Tam*.)	597	·31
Adiramputnam (Athirámbattanam, *Tam*. Adirámpatnam*)	554	·29
Coolashekharaputnam (Kulashékharappattanam, *Mal*.)	525	·27
Tranquebar* (Tarangambádi, *Tam*.) ...	456	·24
Quilandy (Koyilánti, *Mal*. Quilandi*)	429	·22
Deviputnam (Tévippattanam, *Tam*.) ...	412	·21
Porto Novo* (Parangippéttai, *Tam*.) ...	405	·21
Cottapatam (Kottapatnamu, *Tel*. Kottapatam*)	359	·19
Moottoopett (Muttuppéttai, *Tam*. Mutupet*)	338	·17
Coondapore (Kundápura, *Can*. Coondapoor*)	333	...

Ports.	Port dues.	Percentage.
	RS.	
Topootoray (Tópputtorai, *Tam*.) ...	309	·16
Trimalvausal (Tirumalavásal, *Tam*.) ...	305	.15
Cullye (Kalláyi, *Mal*.)	277	·14
Ganjam (Ganjámu, *Tel*.)	257	·13
Cottapollem (Kottapálayamu, *Tel*.) ...	243	·12
Barcore (Bárkúru, *Can*. Bárkúr*) or Hangarcutta (Hangárakatte, *Can*.) ...	241	·12
Chowghaut (Chávakkátu, *Mal*. Chávakád*)	231	·12
Cauyalputnam (Káyalppattanam, *Tam*. Káyalpatnam*)	230	·12
Nizampatam (Nijámupatnamu, *Tel*.) ...	191	·10
Oodipy (Udipi,* *Can*.)	183	·09
Ammaputnam (Ammáppattanam, *Tam*.).	160	·08
Eepoorpollem (Ípurupálayamu, *Tel*. Ipurupálem*)	148	·07
Coringa* (Kórangi, *Tel*.)	146	·07
Moolky (Múlki, *Can*.)	118	·06
Tannore (Tándiyúr, *Mal*. Tánúr*) ...	102	·05
Kistnapatam* (Krishnápatnamu, *Tel*.).	94	·04
Sonapore (Sonnapuramu, *Tel*.)	85	·04
Cottapatam (Kóttáppattanam, *Tam*.) ...	80	·04
Vailangauny (Vélángáni, *Tam*.) ...	73	·03
Manjeshwar (Manjéshvara, *Can*.) ...	67	·03
Iskapully (Iskapalle,* *Tel*.)	43	·02
Coombla (Kumbale, *Can*.)	40	·02
Beidoor (Baidúru, *Can*.)	40	·42
Cassergode (Kásaragódu, *Can*. Kásaragód*)	39	·02
Narsapore (Narasápuramu, *Tel*. Narsápur*)	30	·01
Pamanjy (Pámanji, *Tel*.)	28	·01
Poondy (Púndi,* *Tel*.)	24	·01
Penoomoody (Penumudi, *Tel*.)	7	·003
Naickancuttey (Náikanakatte, *Can*.) ...	5	·002
Mortota (Mórtóta, *Tel*.)	3	·001
Gungaudipollem (Gangádipálayamu, *Tel*.)	3	·001

(3) *Value of Trade of out-ports, arranged according to the amount.*

Ports.	Value of exports and imports.	Percentage which the value of trade of each port bears to the value of trade of all ports.
	RS.	
Tuticorin* (Túttukkudi, *Tam.*).	1,52,68,588	13·66
Cocanada* (Kákináda, *Tel.*) ...	1,52,28,213	13·62
Tellicherry* (Talashsheri, *Mal.*).	1,07,61,808	9·62
Calicut* (Kozhikkóta, *Mal.*) ...	1,03,11,517	9·22
Cochin* (Koççi, *Mal.*)	1,03,07,018	9·22
Mangalore* (Mangalúru, *Can.*)...	71,33,114	6·38
Negapatam* (Nágappattanam, *Tam.*)	64,26,399	5·75
Gopalpore (Gópálapuramu, *Tel.* Gopálpur*)	53,01,777	4·74
Bimlipatam* (Bhímunipatnamu, *Tam.*)	41,67,393	3·72
Beypore* (Béppúra, *Mal.*) ...	39,80,304	3·56
Cannanore* (Kannúra, *Mal.*) ...	36,16,172	3·23
Vizagapatam* (Vishákhapatnamu, *Tel.*)	32,35,349	2·89
Masulipatam* (Machilipatnamu, *Tel.*)	24,82,478	2·22
Badagara* (Vatakara, *Mal.*) ...	17,26,388	1·54
Cuddalore* (Kúdalúr, *Tam.*) ...	13,54,618	1·21
Calingapatam* (Kalingapatnamu, *Tel.*)	10,63,092	·95
Oodipy (Udipi,* *Can.*)	8,48,866	·75
Coolashekharaputnam (Kulashékharappattanam, *Mal.*) ...	8,09,704	·72
Moottoopett (Muttuppéttai, *Tam.* Mutupet*)	7,23,885	·64
Barcore (Bárkúru, *Can.* Bárkúr*).	6,70,566	·60
Adiramputnam (Athirámbattanam, *Tam.* Adirámpatnam*).	6,04,029	·54
Ponnany (Ponnáni, *Mal.* Ponáni*)	5,78,999	·51
Coondapore (Kundápura, *Can.* Coondapoor*)	4,39,653	·39
Paumben (Pámban,* *Tam.*) ...	4,31,582	·38
Keelakaray (Kízhakkarai, *Tam.* Kílakarai*)	3,33,631	·29
Nizampatam (Nijámupatnamu, *Tel.*)	3,21,769	·28
Quilandy (Koyilánti, *Mal.* Quilandi*)	3,21,343	·28
Nagore* (Nágúr, *Tam.*) ...	2,90,485	·25
Trimalvausal (Tirumalavásal, *Tam.*)	2,64,369	·23
Moolky (Múlki, *Can.*)	2,59,071	·23
Cauyalputnam (Káyalppattanam, *Tam.* Káyalpatnam*)	2,11,557	·18
Eepoorpollem (Ípurupálayamu, *Tel.* Ipurupálem*)	2,02,479	·18
	RS.	
Cullye (Kalláyi, *Mal.*)	1,77,806	·15
Deviputnam (Tévippattanam, *Tam.*)	1,67,980	·15
Tondy (Tondi,* *Tam.*)	1,51,850	·13
Cassergode (Kásaragódu, *Can.* Kásaragód*)	1,48,360	·13
Tranquebar* (Tarangambádi, *Tam.*)	1,46,256	·13
Topootoray (Tópputtorai, *Tam.*).	1,37,374	·12
Coringa* (Kórangi, *Tel.*) ...	1,37,081	·12
Porto Novo* (Parangippéttai, *Tam.*)	1,30,142	·11
Sonapore (Sonnápuramu, *Tel.*)...	1,19,837	·10
Cottapatam (Kottapatnamu, *Tel.* Kottapatam*)	95,889	·08
Manjeshwar (Manjéshvara, *Can.*)	90,483	·08
Coombla (Kumbale, *Can.*) ...	81,600	·07
Ammaputnam (Ammáppattanam, *Tam.*)	76,282	·06
Barwah (Báruva,* *Tel.*) ...	63,871	·05
Beidoor (Baidúru, *Can.*)... ...	62,012	·05
Tannore (Tándiyúr, *Mal.* Tánúr*).	47,226	·04
Vailangauny (Vélángáni, *Tam.*)...	45,408	·04
Ganjam* (Ganjámu, *Tel.*) ...	41,181	·03
Chowghaut (Chávakkátu, *Mal.* Chávakád*)	35,189	·03
Cottapatam (Kóttáppattanam, *Tam.*)	27,946	·02
Penoomoody (Penumudi, *Tel.*) ...	21,860	·02
Cottapollem (Kottapálayamu, *Tel.*)	19,853	·01
Iskapully (Iskapalle,* *Tel.*) ...	10,722	·009
Narsapore (Narasápuramu, *Tel.* Narsápur*)	9,175	·008
Pamanjy (Pámanji, *Tel.*) ...	8,144	·007
Naickancuttey (Náikanakatte, *Can.*).	5,879	·005
Kistnapatam* (Krishnápatnamu, *Tel.*)	5,139	·004
Gungaudipollem (Gangádipálayamu, *Tel.*)	4,669	·004
Motoopully (Mótupalle, *Tel.*) ...	4,237	·003
Ramapatam (Rámayyapatnamu, *Tel.*)	2,800	·002
Poondy (Púndi,* *Tel.*)	1,937	·001
Mortota (Mórtóta, *Tel.*)	1,720	·001
Mercaunum (Marakkánam, *Tam.*)	1,270	·001

APPENDIX No. LXV.

LIST OF SALT FACTORIES ARRANGED GEOGRAPHICALLY.

District and division.		Circle.	Factory.	Sub-station.	Whether excise or monopoly.
Chicacole Division.	Ganjam ...	Ganjam * (Ganjámu, *Tel.*).	Ganjam * (Ganjámu, *Tel.*) ...	......	Monopoly.
	Do. ...	Soorlah (Surlá,* *Tel.*) ...	Soorlah (Surlá,* *Tel.*) ...	......	Excise.
	Do. ...	Nowpada (Naupada,* *Tel.*).	Nowpada (Naupada,* *Tel.*) ...	......	Monopoly.
	Do. ...	Calingapatam * (Kalingapatnamu, *Tel.*).	Calingapatam * (Kalingapatnamu, *Tel.*).	......	Excise.
	Vizagapatam ...	Conauda (Kónáda, *Tel.*)	Cooppily (Kuppili,* *Tel.*) ...	......	Do.
			Cona uda (Kónáda, *Tel.*) ...	......	Do.
			Bimlipatam * (Bhímunipatnamu, *Tel.*).	......	Do.
	Do. ...	Baulacheroo (Bála cheruvu, *Tel.*).	Carassa (Karása, *Tel.*) ...	......	Monopoly.
			Baulacheroo (Bála cheruvu, *Tel.*).	......	Do.
Masulipatam Division.	Godavery ...	Pengoodoor (Pennugaduru, *Tel.*).	Pengoodoor (Pennugaduru, *Tel.*)	......	Excise.
	Do. ...	Mogultoor (Mogaliturru, *Tel.* Mogaltur *).	Mogultoor (Mogaliturru, *Tel.* Mogaltur *).	......	Do.
	Kistna ...	Munginapoody (Mangenapúdi, *Tel.*).	Pandrauca (Pándráka, *Tel.*).	......	Monopoly.
			Munginapoody (Mangenapúdi, *Tel.*).	......	Excise.
	Do. ...	Nizampatam (Nijámupatnamu, *Tel.*).	Nizampatam (Nijámupatnamu, *Tel.*).	......	Do.
Nellore Division.	Do. ...	Canoopurty (Kanuparti,* *Tel.*).	Chinnaganjam (Chinnaganjám, *Tel.*)	......	Monopoly.
			Canoopurty (Kanuparti,* *Tel.*)	......	Do.
	Nellore ...	Iskapully (Iskapalle,* *Tel.*).	Paucala (Pákala,* *Tel.*) ...	......	Excise.
			Iskapully (Iskapalle,* *Tel.*)	......	Do.
	Do. ...	Kistnapatam * (Krishnápatnamu, *Tel.*).	Kistnapatam * (Krishnápatnamu, *Tel.*).	......	Do.
			Doogarazpatam (Dugarádzupatnamu, *Tel.* Dugarázpatnam *).	......	Monopoly.
Chingleput.	Do. ...	Tadda (Tada,* *Tel.*) ...	Tadda (Tada,* *Tel.*)	......	Excise.
	Chingleput ...	Ennore (Kattivákkam, *Tam.*).	Cauttore (Káttúr, *Tam.*) ...	......	Do.
			Vayalore (Váyalúr, *Tam.*) ...	......	Do.
			Poolathiwaukum (Puzhuthivákkam, *Tam.*).	......	Do.
			Attiputt (Attippattu, *Tam.*)...	......	Do.
			Vulloor (Vallúr, *Tam.*) ...	......	Do.
	Madras ...	Madras * (Shennappattanam, *Tam.*).	Madras * (Shennappattanam, *Tam.*) Depôt.	......	Both Excise and Monopoly.
	Chingleput ...	Covelong (Kóvalam, *Tam.*).	Vadasemmanjery (Vadasemmañjéri, *Tam.*).	......	Monopoly.
	Do. ...	......	Covelong (Kóvalam, *Tam.*) ...	......	Do.
	Do. ...	......	Cheyoor (Sheyyúr, *Tam.* Cheyúr *).	......	Excise.
	South Arcot ...	Mercaunum (Marakkánam, *Tam.*).	Mercaunum (Marakkánam, *Tam.*)	Choonampett (Shúnámbattu, *Tam.* Chúnámpet *).	Do.
Negapatam.	Do. ...	Cuddalore * (Kúdalúr, *Tam.*).	Cuddalore * (Kúdalúr, *Tam.*)...	Cumblimode (Kambilimédu, *Tam.*) and Maunavary (Mánavari, *Tam.*)	Do.
			Manambaudy (Mánambádi *Tam.*).	......	Do.
	Tanjore ...	Tranquebar * (Tarangambádi, *Tam.*).	Neythavausal (Neydavásal, *Tam.*).	......	Do.
			Tranquebar * (Tarangambádi, *Tam.*).	......	Monopoly.
	Do. ...	Negapatam * (Nágappattanam, *Tam.*).	Negapatam * (Nágappattanam, *Tam.*).	......	Excise.
	Do. ...	Vedaranyam (Vétháraniyam, *Tam.*).	Vedaranyam (Vétháraniyam, *Tam.*).	......	Do.
	Do. ...	Adiramputnam (Athirámbattanam, *Tam.* Adirámpatnam *)	Tumbikkinallavancottah (Tambikkinallavangóttai, *Tam.*)	......	Do.
			Adiramputnam (Athirámbattanam, *Tam.* Adirámpatnam*).	Magilancottah (Magilangóttai, *Tam.*).	Do.
			Cauttoomauvady (Káttumávadi, *Tam.*).	......	Monopoly.

District and division.		Circle.	Factory.	Sub-station.	Whether excise or monopoly.
Tinnevelly.	Madura ...	Vattaunam (Vattánam, *Tam.*).	Vattaunam (Vattánam, *Tam.*).	Teetaundathaunam (Títtándathánam, *Tam.*).	Excise.
	Do. ...	Moracollum (Mórkkulam, *Tam.*).	Moracollum (Mórkkulam, *Tam.*).	......	Monopoly.
			Moottooragoonathaputnam (Mutturagunáthappattanam, *Tam.* Muturagunáthapatnam *).	......	Do.
	Tinnevelly ...	Tuticorin* (Túttukkudi, *Tam.*).	Arsathy (Arasathi, *Tam.*) ...	......	Excise.
			Levingepooram (Liviñjippuram, *Tam.*).	Shivandaucoolam (Shivandákkulam, *Tam.*). Tuticorin * (Túttukkudi, *Tam.*).	Do.
	Do. ...	Cauyalputnam (Káyalpattanam, *Tam.* Káyalpatnam *).	Cauyalputnam (Káyalpattanam, *Tam.* Káyalpatnam *).	......	Do.
	Do. ...	Cootangooly (Kúttanguzhi, *Tam.*).	Cootangooly (Kúttanguzhi, *Tam.*).	......	Monopoly.

APPENDIX No. LXVI.

LIST OF THE STATIONS WHERE RAIN-GAUGES ARE KEPT BY THE REVENUE DEPARTMENT, ARRANGED GEOGRAPHICALLY.

From the places marked in Italics, returns are sent to the Government of India ; and the figures opposite these places indicate the average yearly rainfall in inches, taken for a series of years.

Districts.	Stations.
Ganjam.	*Ganjam* * (Ganjámu, *Tel.*). 40 in.
	Chetterpore (Chhatrapuramu, *Tel.* Chatrapur *).
	Berhampore * (Brahmapuramu, *Tel.*).
	Poorooshottapore (Purushóttapuramu, *Tel.* Purushottapur *).
	Aska * (Ashiká, *Tel.*). 45 in.
	Russellcondah (Rasúlukonda, *Tel.* Russellkonda *).
	Sooradah (Suradá,* *Tel.*).
	Ichapore (Iççápuramu, *Tel.* Ichápur *).
	Sompett (Sómpéta, *Tel.* Sómpet *).
	Tekkaly (Tekkali,* *Tel.*).
	Narsannapett (Narasannapéta, *Tel.* Narsannapet *).
	Chicacole * (Shríkákulamu, *Tel.*).
	Parlakimedy (Parlákimedi, * *Tel.*).
	Calingapatam * (Kalingapatnamu, *Tel.*).
	Gopalpore (Gópálapuramu, *Tel.* Gopálpur *).
	Poondy (Púndi,* *Tel.*).
	Pattoopooram (Pattupuramu, *Tel.*).
	Oodayagherry (Udayagiri,* *Tel.*).
	Balligooda (Balliguda,* *Tel.*).
Vizagapatam.	Ankapully (Anakápalle,* *Tel.*).
	Baulacheroo (Bálacheruvu, *Tel.*).
	Bimlipatam * (Bhímunipatnamu, *Tel.*). 31 in.
	Cheepoorpully (Chípurupalle,* *Tel.*).
	Cooppily (Kuppili,* *Tel.*).
	Narsapatam (Narasapatnamu, *Tel.* Narsapatnam *). 42 in.
	Palcondah (Pálakonda, *Tel.* Pálkonda *).
	Parvatipore (Párvatípuramu, *Tel.* Párvatipur *).
	Saulore (Sálúru, *Tel.* Sálúr *).
	Veeravilly (Víravilli, *Tel.*).
	Vizianagram * (Vijayanagaramu, *Tel.*). 39 in.
	Waltair * (Váltéru, *Tel.*).
	Yellamanchily (Yellamanchili,* *Tel.*).
	Goodem (Gúdemu, *Tel.*).
	Goonapore (Gunupuramu, *Tel.*).
	Coraputt (Kórápatti, *Tel.*).
	Cotepaud (Kótapádu, *Tel.*).
	Mulkangherry (Malakangiri, *Tel.*).
	Navarungapore (Navarangapuramu, *Tel.*).
	Padair (Pádéru, *Tel.*).
	Pottinghy (Pottángi, *Tel.*).
	Royagooda (Ráyagudda, *Tel.*).
	Bobbily (Bobbili,* *Tel.*).
	Srungavarapoocote (Shringavarapukóta, *Tel.*).
	Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar *).
Godavery.	Polaveram (Pólavaramu, *Tel.*).
	Chintalapoody (Chintalapúdi, *Tel.*).
	Raghoodevapooramu (Raghudévapuramu, *Tel.*).
	Toony (Tuni,* *Tel.*).
	Peddapore (Peddápuramu, *Tel.* Peddápuram *).
	Prattipaud (Prattipádu, *Tel.*).
	Amalaupooram (Amalápuramu, *Tel.* Amalápuram*)
	Narsapore (Narasápuramu, *Tel.* Narsápur *).
	Shivacode (Shivakódu, *Tel.*).
	Cottapettah (Kottapéta, *Tel.*).
Godavery—(*Continued*).	Veeravausaram (Víravásaramu, *Tel.* Víravásaram *).
	Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram *).
	Cocanada * (Kákináda, *Tel.*). 37 in.
	Coringa * (Kórangi, *Tel.*).
	Pittapore (Pit'hápuramu, *Tel.* Pithápuram *).
	Alamore (Álamúru, *Tel.*).
	Tanookoo (Tanuku,* *Tel.*).
	*Rajahmundry** (Rájamahéndravaramu, *Tel.*). 37 in.
	Pentapaud (Pentapádu, *Tel.*).
	Ellore * (Ellúru, *Tel.*). 35 in.
	Yernagoodem (Yernagúdemu, *Tel.* Yernagúdem *).
	Bhadrachellam (Bhadráchalamu, *Tel.* Bhadráchalam *).
Kistna.	Repully (Répalle,* *Tel.*).
	Baupatla (Bápatla,* *Tel.*).
	Goontoor (Guntúru, *Tel.* Guntúr *). 33 in.
	Dauchepully (Dáchépalle, *Tel.* Dáchepalle *).
	Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet*).
	Goodivauda (Gudiváda,* *Tel.*).
	Crossoor (Krósúru, *Tel.* Krósúr *).
	Bunder (Bandaru, *Tel.* Bandar *). 37 in.
	Nundigauma (Nandigáma,* *Tel.*).
	Bezwada (Bedzaváda, *Tel.* Bezváda *).
	Vinoocondah (Vinukonda,* *Tel.*). 25 in.
	Tirvoor (Tiruvúru, *Tel.*).
	Gunnavaram (Gannavaramu, *Tel.*).
Nellore.	*Nellore* * (Nellúru, *Tel.*). 35 in.
	Iskapully (Iskapalle,* *Tel.*).
	Goodoor (Gúdúru, *Tel.* Gúdúr *).
	Kistnapatam* (Krishnápatnamu, *Tel.*).
	Cauvaly (Kávali,* *Tel.*).
	Atmacore (Átmakúru, *Tel.* Atmakúr *).
	Raupore (Rápúru, *Tel.* Rápúr *).
	Oodayagherry (Udayagiri,* *Tel.*). 27 in.
	Cundoocore (Kandukúru, *Tel.* Kandukúr *).
	Paucala (Pákala,* *Tel.*).
	Ramapatam (Rámayyapatnamu, *Tel.*).
	Canigherry (Kanigiri,* *Tel.*).
	Ongole * (Vangólu, *Tel.*). 25 in.
	Monapollem (Monapálayamu, *Tel.*).
	Tadda (Tada,* *Tel.*). 42 in.
	Vencatagherry (Venkatagiri,* *Tel.*).
	Darshy (Darishi, *Tel.* Darsi *).
Cuddapah.	Budwail (Badvélu, *Tel.* Badvél *).
	Proddootore (Proddutúru, *Tel.* Proddutur *).
	Sidhout (Siddhavattamu, *Tel.* Siddhavattam *).
	Poollampett (Pullampéta, *Tel.* Pullampet *).
	Cuddapah * (Kadapa, *Tel.*). 27 in.
	Jummalmudoogoo (Jammalamadugu,* *Tel.*).
	Poolivendla (Pulivendala, *Tel.* Pulivendla *).
	Royachoty (Ráyatsóti, *Tel.* Ráyachóti *).
	Kadiry (Kadiri,* *Tel.*).
	Voilpaud (Váyalpádu, *Tel.* Váyalpád *).
	Madanapully (Madanapalle,* *Tel.*). 28 in.
	Chitwail (Chitvélu, *Tel.* Chitvél *).
	Camalaupooram (Kamalápuramu, *Tel.* Kamalápuram *).
	Peelair (Píléru, *Tel.* Pílér *).

Districts.	Stations.
Anantapore.	Anantapore (Anantapuramu, *Tel.* Anantapur *).
	Gooty * (Gutti, *Tel.*). 21 in.
	Tadpatry (Tádiparti, *Tel.* Tadpatri *).
	Dharmavaram * (Dharmavaramu, *Tel.*). 22 in.
	Penoocondah (Penukonda,* *Tel.*).
	Hindoopore (Hindupuramu, *Tel.* Hindupur *).
	Madaksira (Madakasíra, * *Can.*).
	Bookkapatam (Bukkapatnamu, *Tel.* Bukkapatnam*).
	Calyaundroog (Kalyánadurgamu, *Tel.* Kalyándrúg *).
	Ooravacondah (Uravakonda,* *Tel.*).
	Yaudicy (Yádiki, *Tel.*).
Bellary.	*Adony* (Ádaváni, *Tel.* Ádóni *). 28 in.
	Auloor (Álúru, *Tel.* Álúr *).
	Bellary * (Ballári, *Tel.*). 17 in.
	Hurpanhully (Harapanahalli, *Can.* Harpanahalli*).
	Hospett (Hosapéte, *Can.* Hospet *).
	Hoovinhadgally (Húvinahadagalli, *Can.* Huvinahadagalli *).
	Coodligy (Kúdligi,* *Tel.*).
	Royadroog (Ráyadurgamu, *Tel.* Ráyadrug *).
	Cumply (Kampali, *Tel.* Kampli *).
	Siroogooppa (Shiruguppa, *Tel.* Siruguppa*).
	Yemmiganore (Yemmiganúru, *Tel.* Yemmiganúr *).
Kurnool.	*Cumbum* * (Kambhamu, *Tel.*). 24 in.
	Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla *).
	Owk * (Auku, *Tel.*).
	Kurnool * (Karnúlu, *Tel.*). 28 in.
	Marcapore (Márkápuramu, *Tel.* Márkápur *).
	Nundicotcore (Nandikótukúru, *Tel.* Nandikótkur *).
	Atmacore (Átmakúru, *Tel.* Atmakúr *).
	Nundiaul (Nandyála, *Tel.* Nandyál *). 35 in.
	Callwa (Kálava, *Tel.*).
	Putticondah (Pattikonda,* *Tel.*).
	Pyaupaly (Pyápali,* *Tel.*).
	Culloor (Kallúru, *Tel.*).
	Chagulmurry (Tságalamarri, *Tel.*).
Madras.	*Madras* * (Shennappattanam, *Tam.*). 48 in.
Chingleput.	*Sydapett* (Shaithháppéttai, *Tam.* Saidápet *). 50 in.
	Homes Gardens.
	Poonamallee * (Púvirundamalli, *Tam.*).
	Trivellore (Tiruvallúr,* *Tam.*).
	Suttivaid (Shattiyavédu, *Tam.*).
	Ponnairy (Ponnéri,* *Tam.*).
	Chingleput * (Shengalppattu, *Tam.*). 35 in.
	Madrantacam (Mathurándagam, *Tam.* Madurántakam *).
	Ootramallore (Uttiranmérúr, *Tam.*).
	Conjeeveram * (Káñjíppuram, *Tam.*). 38 in.
	Shreepermatore (Shiripperumbúthúr, *Tam.* Sríperumbudur *).
North Arcot.	*Arcot* * (Árkkádu, *Tam.*). 34 in.
	Arconum (Árkkónam, *Tam.* Arkónam *).
	Arnee (Árani, *Tam.* Árni *).
	Chundragherry (Chandragiri,* *Tel.*) 32 in.
	Chittore (Chittúru, *Tel.* Chittoor *). 34 in.
	Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam*).
	Calastry (Kálahasti,* *Tel.*).
	Cungoondy (Kangundi,* *Tel.*).
	Maderpauk (Mátharppákkam, *Tam.*).
	Pulmanair (Palamanéri, *Tel.* Palmanér *). 29 in.
	Poloor (Pólúru, *Tam.* Pólúr *).
	Poonganore (Punganúru, *Tel.* Punganúr *).
	Narrainavaram (Náráyanavaramu, *Tel.* Náráyanavaram*).
	Trittany (Tiruttani, *Tam.* Tirutani *).
	Tripatty (Tiruppathi, *Tam.* Tirupati*).
	Vellore * (Vélúr, *Tam.*). 36 in.
	Vencatagherrycottah (Venkatagirikóta, *Tel.*).
	Wallajah (Válájá, *Hind.*).
	Wandiwash * (Vandavási, *Tam.*).
South Arcot.	*Tindivanam* * (*Tam.*). 41 in.
	Mercaunum (Marakkánam, *Tam.*).
	Jinjee (Sheñji, *Tam.* Gingee *).
	Villoopooram (Villuppuram, *Tam.* Villupuram*).
	Vaunore (Vánúr, *Tam.*).
	Cuddalore * (Kúdalúr, *Tam.*). 41 in.
South Arcot—(*Continued*).	Trivetty (Tiruvathi, *Tam.* Tiruvádi *).
	Chidambaram * (Shithambaram, *Tam.*).
	Bhoovangherry (Puvanakkiri, *Tam.* Bhuvanagiri *).
	Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).
	Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *). 31 in.
	Tittagoody (Tittakkudi, *Tam.* Titagudi *).
	Cullacoorchy (Kallakkuriççi, *Tam.* Kallakurchi *).
	Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr *).
	Ooloondoorpett (Ulundúrppéttai, *Tam.* Ulundurpet *).
	Trinomallee (Tiruvannámalai,* *Tam.*).
	Chengam * (Shemgam, *Tam.*).
Tanjore.	*Combaconam* (Kumbagónam, *Tam.* Kumbakónam *). 40 in.
	Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).
	Mayavaram (Máyavaram,* *Tam.*).
	Nunnilam (Nannilam,* *Tam.*).
	Negapatam * (Nágappattanam, *Tam.*). 45 in.
	Puttoocottah (Pattukkóttai, *Tam.* Patukóta *). 37 in.
	Shiyally (Siyyázhi, *Tam.* Shiyáli *).
	Tanjore * (Tañjávúr, *Tam.*). 30 in.
	Tritrapoondy (Tiruttaruppúndi, *Tam.* Tiruturaipúndi *).
	Arantaungy (Arandángi, *Tam.* Arantángi *).
	Trivauthy (Tiruváthi, *Tam.* Tiruvádi *).
	Tiroovalore (Tiruválúr,* *Tam.*).
	Vullam (Vallam,* *Tam.*).
	Vedaranyam (Vétháraniyam, *Tam.*).
	Moottoopett (Muttuppéttai, *Tam.* Mutupet *).
	Tranquebar * (Tarangambádi, *Tam.*). 47 in.
Trichinopoly.	*Trichinopoly* * (Tiruççinápalli, *Tam.*). 37 in.
	Moosiry (Musiri,* *Tam.*).
	Coolitalay (Kulittalai, *Tam.* Kulitalai *).
	Perambalore (Perambalúr,* *Tam.*).
	Jayancondacholapooram (Shayangondasólappuram, *Tam.* Jayankondacholapuram *).
	Laulgoody (Lálukkudi, *Tam.* Lálgudi *).
	Toorayore (Turaiyúr,* *Tam.*).
	Manapauray (Manappárai, *Tam.* Manapárai *).
	Keelpaloovore (Kízhappaluvúr, *Tam.* Kílpaluvúr *).
	Ariyaloor (Ariyalúr,* *Tam.*).
	Ilooppore (Iluppúr,* *Tam.*).
Madura.	*Madura* * (Mathurai, *Tam.*). 35 in.
	Pulney (Pazhani, *Tam.* Palni *).
	Tiroomungalam (Tirumangalam,* *Tam.*).
	Mailoor (Mélúr, *Tam.* Melúr *).
	Periyacoolam (Periyakkulam, *Tam.* Periyakulam *). 26 in.
	Dindigul * (Tindukkal, *Tam.*). 28 in.
	Vedasundoor (Védasandúr, *Tam.*).
	Oosilamputty, (Usilambatti, *Tam.*).
	Tripatore (Tiruppattúr, *Tam.*).
	Ramnaud (Rámanáthappuram, *Tam.* Ramnad *).
	Chinnammanore (Shinnammanúr, *Tam.* Chinnammanúr *).
	Moothoocoolatore (Muthukkulattúr,* *Tam.* Mutukulatúr *).
	Shivagunga (Shivakkangai, *Tam.* Sivaganga *).
	Nilacottah (Nilakkóttai, *Tam.*).
	Tirooshooly (Tiruççuzhi, *Tam.* Tirushuli *).
	Paumben (Pámban,* *Tam.*).
	Kodaykarnal (Kodikkánal, *Tam.* Kodaikánal *).
	Vattaunam (Vattánam, *Tam.*). 34 in.
	Moracollum (Mórkkulam, *Tam.*).
	Moottooragoonathaputnam (Mutturagunáthappattanam, *Tam.* Muturagunáthapatnam *).
Tinnevelly.	Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).
	Palamcottah * (Pálaiyangóttai, *Tam.*).
	Nangoonairy (Nángunéri, *Tam.* Nánguneri *).
	Ottapidauram (Óttapidáram, *Tam.* Otapidáram *).
	Shautore (Sháttúr, *Tam.* Sátúr *). 20 in.
	Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur *).
	Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *).
	Tencausy (Tengási, *Tam.* Tenkási *).
	Tencaray (Tengarai, *Tam.* Tenkarai *).
	Tinnevelly * (Tirunelvéli, *Tam.*). 28 in.
	Tuticorin * (Túttukkudi, *Tam.*). 18 in.

Districts.	Stations.
Coimbatore.	*Coimbatore* * (Kóyamuttúr, *Tam*). 21 in.
	Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam *).
	Pulladam (Palladam,* *Tam.*).
	Avanashy (Avanási, *Tam.* Avanáshi *).
	Pollachy (Polláççi, *Tam.* Pollächi *).
	Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *).
	Erode * (Íródu, *Tam.*).
	Peroondoray (Perundurai,* *Tam.*).
	Caroor (Karúr,* *Tam.*). 26 in.
	Aravacoorchy (Aravakkuriççi, *Tam.* Aravakurchi *).
	Dharaupooram (Táráppuram, *Tam.* Dhárápuram).
	Caungyam (Kángayam, *Tam.* Kángyam *).
	Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam *).
	Talavaudy (Tálavádi,* *Tam.*).
	Bhawany (Paváni, *Tam.* Bhaváni *).
	Collegaul (Kollégálam, *Tam.* Kollegál *). 36 in.
Neilgherries.	Ootacamund * (Ottagaimandu, *Tam.*).
	Coonoor * (Kunnúr, *Tam.*).
	Kaity (Kéti, *Can.*).
	Kodanaud (Kódanádu, *Tam.*).
	Mailcoondah (Mélkkunda, *Tam.*).
	Wellington. * in.
	Goodalore (Kúdalúr, *Tam.* Gúdalúr *).
	Kotagherry (Kóttagiri, *Tam.* Kótagiri *).
	Nedoowuttam (Naduvattam, *Tam.* Naduvatam *).
	Pykarra (Páykkarai, *Tam.* Pykara*).
	Devalah (Dévála, *Mal.* Devála *).
Salem.	*Salem* * (Shélam, *Tam.*). 37 in.
	Shevaroy Hills * (Shérvaráyanmalai, *Tam.*). 60 in.
	Rajapooram (Rás appuram, *Tam.* Rájapuram *).
	Omalore (Ómalúr, *Tam.* Omalúr *).
	Namcull (Námakkal, *Tam.* Námakal *).
	Paramatty (Paramatti, *Tam.*).
	Trichengode (Tiruççengódu, *Tam.* Tiruchengód *).
	Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug *).
Salem—(*Continued*).	*Ahtoor* (Áttúr, *Tam.* Atúr *). 34 in.
	Oossoor (Hosúru, *Can.* Hosúr *). 32. in.
	Dencanicottah (Tenganikkóttai, *Tam.* Denkanikóta *).
	Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *).
	Pennagaram (Pennágaram, *Tam.*).
	Tripatore (Tiruppattúr, *Tam.* Tirupatúr *). 38 in.
	Vaniyambaudy (Vániyambádi,* *Tam.*).
	Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *).
	Ootancaray (Úttangarai, *Tam.* Úttankarai *).
	Haroor (Arúr, *Tam.*).
South Canara.	*Mangalore* * (Mangalúru, *Can.*). 133 in.
	Buntwaul (Bantvála, *Can.* Bantvál *).
	Oodipy (Udipi,* *Can.*).
	Caurcal (Kárkala, *Can.*).
	Poottoor (Puttúru, *Can.*).
	Beltanguddy (Beltangadi, *Can.*).
	Coondapore (Kundápura, *Can.* Coondapoor *).
	Cassergode (Kásaragódu, *Can.* Kásaragód *).
	Hosdroog (Hosadurga, *Can.*).
Malabar.	*Cannanore* * (Kannúra, *Mal.*). 130 in.
	Tellicherry * (Talashsheri, *Mal.*). 126 in.
	Badagara * (Vatakara, *Mal.*).
	Manantoddy * (Mánantóti, *Mal.*). 97 in.
	Vythery (Vaittiri, *Mal.* Vayitri *).
	Chevayoor (Chéváyúra, *Mal.* Chevayur *).
	Calicut * (Kozhikkóta, *Mal.*). 115 in.
	Munjery (Manchéri, *Mal.* Manjeri *).
	Nelambore (Nilampúra, *Mal.* Nilambúr *).
	Tiroorangaudy (Tirúrannáti, *Mal.* Tirurangádi *).
	Angaudipooram (Annátippuram, *Mal.* Angádipuram *).
	Palghaut (Palakkátu, *Mal.* Pálghat *). 73 in.
	Ponnany (Ponnáni, *Mal.* Ponáni *).
	Cochin (Coççi,* *Mal.*). 114 in.

APPENDIX No. LXVII.

DIVISIONAL CHARGES OF SUPERINTENDENTS AND ASSISTANT SUPERINTENDENTS OF POLICE.

District.	Inspectors' Divisions in charge of Superintendent.	To what Revenue talook corresponding.	Inspectors' Divisions in charge of Assistant Superintendent.	To what Revenue talook corresponding.
Anantapore ...	Anantapore (Anantapuramu, *Tel.* Anantapur *).	Anantapore.		
	Gooty * (Gutti, *Tel.*)	Gooty.		
	Ooravacondah (Uravakonda,* *Tel.*)	Do.		
	Tadpatry (Tádiparti, *Tel.* Tadpatri *).	Tadpatry.		
	Dharmavaram * (Dharmavaramu, *Tel.*)	Dharmavaram.		
	Calyaundroog (Kalyánadurgamu, *Tel.* Kalyándrúg *).	Do.		
	Penoocondah (Penukonda,* *Tel.*).	Penoocondah.		
	Hindoopore (Hindupuramu, *Tel.* Hindupur *).	Hindoopore.		
	Madaksira (Madakasíra, *Can.*)	Madaksira.		
Bellary ...	Bellary * (Ballári, *Tel.*) ...	Bellary.		
	Siroogooppa (Shiruguppa, *Tel.* Siruguppa *).	Do.		
	Hospett (Hosapéte, *Can.* Hospet *).	Hospett.		
	Cumply (Kampali, *Tel.* Kampli *).	Do.		
	Coodligy (Kúdligi,* *Tel.*) ...	Coodiligy.		
	Hurpanhully (Harapanahalli, *Can.* Harpanahalli *).	Hurpanhully.		
	Hadgally (Hadagali, *Tel.*) ...	Hoovinhadgally.		
	Adony (Ádaváni, *Tel.* Ádóni *).	Adony.		
	Yemmiganore (Yemmiganúru, *Tel.* Yemmiganúr *).	Do.		
	Auloor (Álúru, *Tel.* Álúr *) ...	Auloor.		
	Royadroog (Ráyadurgamu, *Tel.* Ráyadrug *).	Royadroog.		
Chingleput ...	Shembiam (*Tam.*)	Sydapett.		
	Sydapett (Shaithàppéttai, *Tam.* Saidápet *).	Do.		
	St. Thomas' Mount * (Parangimalai, *Tam.*).	Do.		
	Ponnairy (Ponnéri,* *Tam.*) ...	Ponnairy.		
	Trivellore (Tiruvallúr,* *Tam.*).	Tirvellore.		
	Suttivaid (Shattiyavédu, *Tam.*).	Do.		
	Conjeeveram * (Káñjípuram, *Tam.*).	Conjeeveram.		
	Shreepermatore (Shrípperumbúthúr, *Tam.* Sríperumbudur *).	Do.		
	Tirooporoor (Tiruppórúr, *Tam.* Tirupórúr *).	Chingleput.		
	Madrantacam (Mathurándagam, *Tam.* Maduránta-kam *).	Madrantacam.		
	Ootramallore (Uttiranmérúr, *Tam.*).	Do.		
	Chingleput * (Shengalppattu, *Tam.*).	Chingleput.		
Coimbatore ...	Coimbatore * (Kóyamuttúr, *Tam.*).	Coimbatore.	Bhawany (Paváni, *Tam.* Bhaváni *).	Bhawany.
	Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam *).	Do.	Erode * (Íródu, *Tam.*) ...	Erode.
	Ootacamund * (Ottagaimandu, *Tam.*).	Neilgherry.	Caroor (Karúr,* *Tam.*) ...	Caroor.
	Wellington *	Do.	Collegaul (Kollégálam, *Tam.* Kollegál *).	Collegaul.

District.	Inspectors' Divisions in charge of Superintendent.	To what Revenue talook corresponding.	Inspectors' Divisions in charge of Assistant Superintendent.	To what Revenue talook corresponding.
Coimbatore ...	Goodalore (Kúdalúr, *Tam.* Gúdalúr *).	Neilgherry.	Dharaupooram (Táráppuram, *Tam.* Dhárápuram *).	Dharaupooram.
	Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *).	Oodamalpett.	Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam *).	Suttimungalam.
	Pollachy (Polláççi, *Tam.* Polláchi *).	Pollachy.	Talavaudy (Tálavádi,* *Tam.*).	Do.
	Pulladam (Palladam,* *Tam.*) .	Pulladam.		
	Avanashy (Avanási, *Tam.* Avanáshi *).	Do.		
Cuddapah ...	Jummalmudoogoo (Jammalamadugu,* *Tel.*).	Jummalmudoogoo.	Voilpaud (Váyalpádu, *Tel.* Váyalpád *).	Voilpaud.
	Proddootore (Proddutúru, *Tel.* Proddutur *).	Proddootore.	Peelair (Píléru, *Tel.* Pílér *).	Do.
	Poollampett (Pullampéta, *Tel.* Pullampet *).	Poollampett.	Madanapully (Madanapalle,* *Tel.*).	Madanapully.
	Chitwail (Chitvélu, *Tel.* Chitvél *).	Do.	Kadiry (Kadiri,* *Tel.*) ...	Kadiry.
	Sidhout (Siddhavattamu, *Tel.* Siddhavattam *).	Sidhout.	Danayanicheroo (Dhanáyanicheruvu, *Tel.*).	Do.
	Cuddapah * (Kadapa, *Tel.*) ...	Cuddapah.	Royachoty (Ráyatsóti, *Tel.* Ráyachóti *).	Royachoty.
	Camalaupooram (Kamalápuramu, *Tel.* Kamalapuram *).	Do.	Lakkireddipully (Lakkireddipalle, *Tel.*).	Do.
	Balpanoor (Balapanúru, *Tel.*).	Poolivendla.		
	Poolivendla (Pulivendala, *Tel.* Pulivendla *).	Do.		
	Budwail (Badvélu, *Tel.* Badvél *).	Budwail.		
	Pormaumilla (Pórumámilla,* *Tel.*).	Do.		
			First Assistant.	
Ganjam ...	Ichapore (Içcápuramu, *Tel.* Ichápur *).	Zemindarry.	Chicacole * (Shríkákulamu, *Tel.*).	Chicacole.
	Berhampore * (Brahmapuramu, *Tel.*).	Berhampore.	Ragoonathapooram (Raghunádhapuramu, *Tel.* Raghunáthapuram *).	Agency Tract.
	Poorooshottapore (Purushóttapuramu, *Tel.* Purushottapur *).	Zemindarry.	Kimedy (Kimedi, *Tel.*) ...	Zemindarry Station.
	Ganjam * (Ganjámu, *Tel.*) ...	Do.	Varnausy (Váranási, *Tel.*) ...	Do.
	Aska * (Ashiká, *Tel.*)	Do.	Colacottah (Kolakóta, *Tel.*) .	Agency Tract.
			Second Assistant.	
			Toommiribund (Tummiribandu, *Tel.*).	Agency Tract.
			Boogoodah (Bugudá,* *Tel.*)...	Do.
			Mohana (Móhana, *Tel.*) ...	Do.
			Oodayagherry (Udayagiri,* *Tel.*).	Do.
			Russellcondah (Rasúlukonda, *Tel.* Russellkonda *).	Do.
			Sooradah (Suradá,* *Tel.*) ...	Do.
Godavery ...	Rajahmundry * (Rájamahéndravaramu, *Tel.*).	Rajahmundry.	Narsapore (Narasápuramu, *Tel.* Narsápur *).	Narsapore.
	Peddapore (Peddápuramu, *Tel.* Peddápuram *).	Peddapore.	Veeravausaram (Víravásaramu, *Tel.* Víravásaram).	Bheemavaram.
	Cocanada * (Kákináda, *Tel.*)...	Zemindarry.	Tanookoo (Tanuku,* *Tel.*) ...	Tanookoo.
	Amalaupooram (Amalápuramu, *Tel.* Amalápuram *).	Amalaupooram.	Ellore * (Ellúru, *Tel.*) ...	Ellore.
	Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram *).	Ramchendrapooram.	Chintalapoody (Chintalapúdi, *Tel.*).	Do.
	Toony (Tuni,* *Tel.*)	Zemindarry.	Tallapoody (Tállapúdi,* *Tel.*).	Yernagoodem.
	Gokaveram (Gókavaramu, *Tel.*).	Ellore.	Potavaram (Pótavaramu, *Tel.*).	Do.
	Pittapore (Pit'hápuramu, *Tel.* Pithápuram *).	Zemindarry.		
	Bhadrachellam (Bhadráchalamu, *Tel.* Bhadráchalam *).	Bhadrachellam.		
	Rekapully (Rékapalle, *Tel.* Rékapalli *).	Rekapully.		
Jeypore (Division of Vizagapatam District).	Nundapore (Nandápuramu, *Tel.*).	Agency Tract.	Nundapore (Nandápuramu, *Tel.*).	Agency Tract.
	Navarungapore (Navarangapuramu, *Tel.*).	Do.	Navarungapore (Navarangapuramu, *Tel.*).	Do.
	Coraputt (Kórápatti, *Tel.*) ...	Do.	Coraputt (Kórápatti, *Tel.*) ...	Do.
	Jeypore * (Jayapuramu, *Tel.*).	Do.	Jeypore * (Jayapuramu, *Tel.*).	Do.
	Condacumbair (Kondakambéru, *Tel.*).	Do.	Condacumbair (Kondakambéru, *Tel.*).	Do.
	Mulkangherry (Malakangiri, *Tel.*).	Do.	Mulkangherry (Malakangiri, *Tel.*).	Do.

District.	Inspectors' Divisions in charge of Superintendent.	To what Revenue talook corresponding.	Inspectors' Divisions in charge of Assistant Superintendent.	To what Revenue talook corresponding.
Kistna ...	Bunder (Bandaru, *Tel.* Bandar *)	Bunder.	Baupatla (Bápatla,* *Tel.*) ...	Baupatla.
	Repully (Répalle,* *Tel.*) ...	Repully.	Goontoor (Guntúru, *Tel.* Guntúr *).	Goontoor.
	Goodivauda (Gudiváda,* *Tel.*).	Goodivauda.	Dauchepully (Dáchépalle, *Tel.* Dáchepalle *).	Pulnaud.
	Juggayapett (Jaggayyapéta, *Tel.* Jaggayapet *).	Nundigauma.	Toommacode (Tummakódu, *Tel.*).	Do.
	Nundigauma (Nandigáma,* *Tel.*).	Do.	Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet *).	Narsarowpett.
	Bezwada (Bedzaváda, *Tel.* Bezváda *).	Bezwada.	Sattenapully (Sattenapalle,* *Tel.*).	Crossoor.
	Gunnavaram (Gannavaramu, *Tel.*).	Noozveed Zemindarry.	Vinoocondah (Vinukonda,* *Tel.*).	Vinoocondah.
	Tiroovore (Tiruvúru, *Tel.*) ...	Vissanapett Zemindarry.		
Kurnool ...	Gonnegundla (Gónegandla, *Tel.*).	Putticondah.	Sirwail (Chiruvella, *Tel.* Sirvel *).	Sirwail.
	Putticondah (Pattikonda,* *Tel.*).	Do.	Cumbum * (Kambhamu, *Tel.*).	Cumbum.
	Pyaupaly (Pyápali,* *Tel.*) ...	Do.	Krishnasettipully (Krishnashettipalli, *Tel.*).	Do.
	Ramalcottah (Rámallakóta, *Tel.* Rámallakót *).	Ramalcottah.	Marcapore (Márkápuramu, *Tel.* Márkápur *).	Marcapore.
	Nundiaul (Nandyála, *Tel.* Nandyál *).	Nundiaul.	Saupalmadoogoo (Tsápalamadugu, *Tel.*).	Do.
	Callwa (Kálava, *Tel.*) ...	Do.	Culloor (Kallúru, *Tel.*) ..	Ramalcottah.
	Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla *).	Coilcoontla.	Ramalcottah (Rámallakóta, *Tel.* Rámallakót *).	Do.
	Owk * (Auku, *Tel.*)	Do.	Atmacore (Átmakúru, *Tel.* Atmakúr *).	Nundicotcore.
			Nundicotcore (Nandikótukúru, *Tel.* Nandikótkur *).	Do.
Madura ...	Madura * (Mathurai, *Tam.*) ...	Madura.	Tirooshooly (Tiruççuzhi, *Tam.* Tirushuli *).	Zemindarry Station.
	Dindigul * (Tindukkal, *Tam.*).	Dindigul.	Moothoocoolatore (Muthukkulattúr, *Tam.* Mutukulatúr *).	Do.
	Nilacottah (Nilakkóttai, *Tam.*).	Do.	Ramnaud (Rámanáthappuram, *Tam.* Ramnad *).	Do.
	Pulney (Pazhani, *Tam.* Palni *).	Pulney.	Trivathauny (Tiruvádánai, *Tam.*).	Do.
	Tungatchiammaputty (Tangaççiyammáppatti, *Tam.*).	Do.	Shivagunga (Shivakkangai, *Tam.* Sivaganga *).	Do.
	Periyacoolam (Periyakkulam, *Tam.* Periyakulam *).	Periyacoolam.	Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).	Do.
	Chinnammanore (Shinnammanúr, *Tam.* Chinnammanúr *).	Do.		
	Tiroomungalam (Tirumangalam,* *Tam.*).	Tiroomungalam.		
	Oosilamputty (Usilambatti, *Tam.*).	Do.		
	Mailoor (Mélúr, *Tam.* Melúr *).	Mailoor.		
			First Assistant.	
Malabar ...	Yernaud (Éranátu, *Mal.* Ernád *).	Yernaud.	Vythery (Vaittiri, *Mal.* Vayitri *).	Wynaud.
	Shernaud (Chérnátu, *Mal.*) ...	Do.	Manantoddy * (Mánantóti, *Mal.*).	Do.
	Valavanaud (Valluvanátu, *Mal.* Walawanád *).	Valavanaud.	*Second Assistant.*	
	Cherpalcherry (Cherppullashshéri, *Mal.* Cherpalcheri *).	Do.	Palghaut (Pálakkátu, *Mal.* Pálghat *).	Palghaut.
	Calicut * (Kozhikkóta, *Mal.*).	Calicut.	Cochin * (Koççi, *Mal.*) ...	Cochin.
			Ponnany (Ponnáni, *Mal.* Ponáni*).	Ponnany.
			Chowghaut (Chávakkátu, *Mal.* Chávakád *).	Do.
			Poodiyangaudy (Putiyannáti, *Mal.*).	Do.
Nellore ...	Goodoor (Gúdúru, *Tel.* Gúdúr *).	Goodoor.	Canigherry (Kanigiri,* *Tel.*).	Canigherry.
	Raupore (Rápúru, *Tel.* Rápúr*).	Raupore.	Pamoor (Pámúru, *Tel.*) ...	Do.
	Nellore * (Nellúru, *Tel.*) ...	Nellore.	Cundoocore (Kandukúru, *Tel.* Kandukúr *).	Cundoocore.
	Alloor (Allúru, *Tel.* Allúr *).	Do.	Ongole * (Vangólu, *Tel.*) ...	Ongole.
	Atmacore (Átmakúru, *Tel.* Atmakúr *).	Atmacore.	Addanky (Addanki,* *Tel.*) ...	Do.
	Oodayagherry (Udayagiri,* *Tel.*).	Oodayagherry.	Podily (Podile, *Tel.* Podili *).	Podily Zemindarry.
	Seetaramapooram (Sítárámapuramu, *Tel.*).	Do.	Darshy (Darishi, *Tel.* Darsi*).	Darshy do.

District.	Inspectors' Divisions in charge of Superintendent.	To what Revenue talook corresponding.	Inspectors' Divisions in charge of Assistant Superintendent.	To what Revenue talook corresponding.
Nellore (*Continued*).	Cauvaly (Kávali,* *Tel.*) ...	Cauvaly.		
	Naidoopett (Náyudupéta, *Tel.* Náyudupet *).	Poloor Zemindarry.		
	Vencatagherry (Venkatagiri,* *Tel.*).	Vencatagherry.		
North Arcot ...	Chundragherry (Chandragiri,* *Tel.*).	Chundragherry.	Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam *).	Goodiyattam.
	Tripatty (Tiruppathi, *Tam.* Tirupati *).	Do.	Vellore * (Vélúr, *Tam.*) ...	Vellore.
	Narrainavaram (Náráyanavaramu, *Tel.* Náráyanavaram *).	Carvetnugger Zemindarry.	Arcot * (Árkkádu, *Tam.*) ...	Arcot.
	Trittany (Tiruttani, *Tam.* Tirutani *).	Do.	Wallajahpett (Válásáppéttai, *Tam.* Wálajápet *).	Wallajahpett.
	Pulmanair (Palamanéri, *Tel.* Palmanér *).	Pulmanair.	Wandiwash * (Vandavási, *Tam.*).	Wandiwash.
	Calastry (Kálahasti,* *Tel.*) ...	Calastry Zemindarry.	Cungoondy (Kangundi,* *Tel.*)	Cungoondy Zemindarry.
	Maderpauk (Mátharppákkam, *Tam.*).	Do.	Arnee (Árani, *Tam.* Árni *) and Poloor (Pólúru, *Tam.* Pólúr *).	Poloor.
	Chittore (Chittúru, *Tel.* Chittoor *).	Chittore.	Vellore * (Vélúr, *Tam.*) Town.	Vellore.
	Poonganore (Punganúru, *Tel.* Punganúr *).	Poonganore Zemindarry.		
	Sowdapully (Chaudépalle, *Tel.*).	Do.		
Salem ...	Salem * (Shélam, *Tam.*) ...	Salem.	Ootancaray (Úttangarai, *Tam.* Úttankarai *).	Ootancaray.
	Omalore (Ómalúr, *Tam.* Omalúr *).	do.	Haroor (Arúr, *Tam.*) ...	Do.
	Ahtoor (Áttúr, *Tam.* Atúr *).	Ahtoor.	Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).	Tripatore.
	Namcull (Námakkal, *Tam.* Námakal *).	Namcull.	Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *).	Krishnagherry.
	Paramatty (Paramatti, *Tam.*).	Do.	Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *).	Dharmapoory.
	Trichengode (Tiruççengódu, *Tam.* Tiruchengód *).	Trichengode.	Pennagaram (Pennágaram, *Tam.*).	Do.
	Shunkerrydroog (Shangagirittturukkam, *Tam.* Sankaridrug *).	Do.	Ossoor (Hosúru, *Can.* Hosúr *).	Oossoor.
			Dencanicottah (Tenganikkóttai, *Tam.* Denkanikóta *).	Do.
South Arcot ...	Cuddalore * (Kúdalúr, *Tam.*).	Cuddalore.	Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *).	Vriddhachellam.
	Panrooty (Pannurutti, *Tam.* Panruti *).	Do.	Tittagoody (Tittakkudi, *Tam.* Titagudi *).	Do.
	Chidambaram * (Shithambaram, *Tam.*).	Chidambaram.	Cullacoorchy (Kallakuriççi, *Tam.* Kallakurchi *).	Cullacoorchy.
	Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).	Do.	Ooloondoorpett (Ulundúrppéttai, *Tam.* Ulundurpet *).	Tiroocoilore.
	Cundamungalam (Kandamangalam, *Tam.*).	Villoopooram.	Tiroocoilore (Tirukkóyilúr, *Tam.* Tirukoilúr *).	Do.
	Villoopooram (Villuppuram, *Tam.* Villupuram *).	Do.	Chengam * (Shengam, *Tam.*)	Trinomallee.
	Jinjee (Sheñji, *Tam.* Gingee *)	Tindivanam.	Trinomallee (Tiruvannámalai,* *Tam.*).	Do.
	Tindivanam * (*Tam.*) ...	Do.		
			Third Assistant.	
South Canara.	Mangalore * (Mangalúru, *Can.*).	Mangalore.	Cottayam (Kóttayam,* *Mal.*)	Cottayam.
	Buntwaul (Bantvála, *Can.* Bantvál *).	Do.	Tellicherry * (Talashsheri, *Mal.*).	Do.
	Cassergode (Kásaragódu, *Can.* Kásaragód *).	Cassergode.	Cannanore * (Kannúra, *Mal.*).	Chiracal.
	Oodipy (Udipi,* *Can.*) ...	Oodipy.	Taliparamba * (Talipparamba, *Mal.*).	Do.
	Ooppinangady (Uppinangadi,* *Can.*).	Ooppinangady.	Badagara * (Vatakara, *Mal.*).	Cooroombranaud.
	Poottoor (Puttúru, *Can.*) ...	Do.	Quilandy (Koyilánti, *Mal.* Quilandi *).	Do.
	Coondapore (Kundápura, *Can.* Coondapoor *).	Coondapore.	Mahé (Mayyazhi, *Mal.*). Land Customs.	Do.
Tanjore ...	Tanjore * (Tañjávúr, *Tam.*) ...	Tanjore.	Shiyally (Shiyyázhi, *Tam.* Shiyáli *).	Shiyally.
	Trivaudy (Tiruváthi, *Tam.* Tiruvádi *).	Do.	Mayavaram (Máyavaram,* *Tam.*).	Mayavaram.
	Vullam (Vallam,* *Tam.*) ...	Do.	Porayaur (Poraiyár, *Tam.*)...	Do.
	Combaconam (Kumbagónam, *Tam.* Kumbakónam).	Combaconam.	Nunnilam (Nannilam,* *Tam.*)	Nunnilam.
	Paupanausam (Páppavinásam, *Tam.* Papánásam *).	Do.	Negapatam * (Nágappattanam, *Tam.*).	Negapatam.
	Tiroovadamaroothore (Tiruvidaimaruthúr, *Tam.* Tiruvadamarudúr *).	Do.	Tiroovalore (Tiruválúr,* *Tam.*).	Do.

District.	Inspectors' Divisions in charge of Superintendent.	To what Revenue talook corresponding.	Inspectors' Divisions in charge of Assistant Superintendent.	To what Revenue talook corresponding.
Tanjore ... (*Continued*).	Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).	Munnargoody.	Tritrapoondy (Tiruttarup-púndi, *Tam.* Tiruturaipúndi *). Land Customs Division.	Tritrapoondy.
	Puttoocottah (Pattukóttai, *Tam.* Patukóta*).	Puttoocottah.		
	Arantaungy (Arandángi, *Tam.* Arantángi *).	Do.		
Tinnevelly ...	Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilipntur *).	Shreevillipoottore.	Shautore (Sháttúr, *Tam.* Sátúr *).	Shautore.
	Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *).	Shunkaraneinarcoil.	Viroothooputty (Viruthuppatti, *Tam.* Virudupati *).	Do.
	Tencausy (Tengási, *Tam.* Tenkási *).	Tencausy.	Ottapidauram (Óttappidáram, *Tam.* Otapidáram *).	Ottapidauram.
	Tinnevelly * (Tirunelvéli, *Tam.*).	Tinnevelly.	Cayataur (Kaittár, *Tam.* Kayatár *).	Do.
	Palamcottah * (Pálaiyangkóttai, *Tam.*).	Do.	Vilauticoolam (Viláttikkulam, *Tam.* Vilátikulam *).	Do.
	Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).	Ambasamoodram.	Shreeveicoontam (Shirívaikkundam, *Tam.* Srívaikuntham *).	Tencaray.
	Nangoonairy (Nángúnéri, *Tam.* Nángunéri *).	Nangoonairy.	Coolashekharaputnam (Kulaségarappattanam, *Tam.* Kulasekharapatnam *)	Do.
	Radhaupooram (Ráthàppuram, *Tam.* Rádhápuram *).	Do.		
	Palamcottah * (Pálaiyangóttai, *Tam.*).			
Trichinopoly...	Trichinopoly * (Tiruççináppalli, *Tam.*).	Tinnevelly.		
	Cope (Kóppu, *Tam.*)	Trichinopoly.		
	Laulgoody (Lálukkudi, *Tam.* Lálgudi *).	Do.		
	Oodayarpolliem (Udaiyárppálaiyam, *Tam.* Udayárpálaiyam *).	Do.		
	Ariyaloor (Ariyalúr,* *Tam.*)...	Oodayarpolliem.		
	Perambalore (Perambalúr,* *Tam.*).	Do.		
	Moosiry (Musiri,* *Tam.*) ...	Perambalore.		
	Toorayore (Turaiyúr,* *Tam.*).			
	Coolitalay (Kulittalai, *Tam.* Kulitalai *).	Moosiry. Do.		
	Manapauray (Manappárai, *Tam.* Manapárai *).	Coolitalay. Do.	*First Assistant.*	
Vizagapatam...	Vizagapatam * (Vishákhapatnamu, *Tel.*).	Zemindarry Station.	Ankapully (Anakápalle,* *Tel.*).	Zemindarry Station.
	Bimlipatam * (Bhímunipatnamu, *Tel.*).	Do.	Chodavaram (Chódavaramu, *Tel.* Chódavaram *).	Do.
	Vizianagram * (Vijayanagaramu, *Tel.*).	Do.	Srungavarapoocote (Shringavarapukóta, *Tel.*).	Do.
	Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar *).	Do.	Yellamanchily (Yellamanchili, *Tel.*).	Sarwasiddhy Talook.
	Cheepoorpully (Chípurupalle,* *Tel.*).	Do.	Krishnadevipett (Krishnadévipéta, *Tel.*).	Golcondah Talook.
			Narsapatam (Narasapatnamu, *Tel.* Narasapatnam *) W.	Do.
			Second Assistant.	
			Palcondah (Pálakonda, *Tel.* Pálkonda *).	Zemindarry Station.
			Parvatipore (Párvatípuramu, *Tel.* Párvatipur *).	Do.
			Bobbily (Bobbili,* *Tel.*) ...	Do.
			Goonapore (Gunupuramu, *Tel.*).	Agency Tract.
			Puttahsinghy (Puttásingi, *Tel.*).	Do.
			Goodaury (Gudári, *Tel.*) ...	Do.
			Bissemcote (Bissemkóta, *Tel.*)	Do.
			Royagooda (Ráyagudda, *Tel.*)	Do.

APPENDIX No. LXVIII.

LIST OF MAPS PUBLISHED BY THE MADRAS SURVEY DEPARTMENT, AND AVAILABLE FOR DISTRIBUTION OR SALE.

NOTE.—*The Maps are distributed gratis to Government Officials, for boná fide Government purposes. They are for sale to the public at the prices indicated. Application is made to Collectors for the maps in column 3 and to the Superintendent, Madras Survey, for all others. The Maps are partly coloured, but they are unmounted. The years shown in columns 1, 2 and 3 are the dates of publication.*

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Anantapore ...	*Anantapore* (Anantapuramu, *Tel.* Anantapur *) *Talook.* *Dharmavaram* * (Dharmavaramu, *Tel.*) *Talook.* *Gooty* * (Gutti, *Tel.*) *Talook.* *Hindoopore* (Hindupuramu, *Tel.* Hindupur *) *Talook.* *Madaksira* (Madakasíra,* *Tel.*) *Talook.* *Penoocondah* (Penukonda,* *Tel.*) *Talook.* *Tadpatry* (Tádiparti, *Tel.* Tadpatri *) *Talook.*	(1.) For all the talooks having maps as shown in col. 2, there are also village maps; scale 16 inches to the mile Government villages, and 4 inches to the mile proprietary villages. The price is by the acreage; viz., for each village:— under 1,000 acres ... ... 4 annas; from 1,000 to 1,500 acres ... 6 do.; do. 1,500 to 2,000 do. ... 8 do.; do. 2,000 to 3,000 do. ... 10 do.; do. 3,000 to 4,000 do. ... 12 do.; do. 4,000 to 5,000 do. ... 14 do.; above 5,000 do. ... 1 rupee. (2.) In the cases following, village maps are ready in advance of the talook maps:— Arcot, North. { Chundragherry (Chandragiri,* *Tel.*) Talook, 1880. Chittore (Chittúru, *Tel.* Chittoor *) Talook, 1883. Pulmanair (Palamanéri, *Tel.* Palmanér *) Talook (part), 1885. Wandiwash * (Vandavási, *Tam.*) Talook, 1878. Arcot, South. { Tindivanam * (*Tam.*) Talook, 1880. Trinomallee (Tiruvannámalai,* *Tam.*) Talook, 1885. Villoopooram (Villuppuram, *Tam.* Villupuram *) Talook, 1881. Bellary. { Adony (Ádaváni, *Tel.* Ádóni *) Talook, 1879. Auloor (Álúru, *Tel.* Álúr *) Talook, 1885. Coimbatore. { Collegaul (Kollégálam, *Tam.* Kollegál *) Talook, 1880. Cuddapah. { Kadiry (Kadiri,* *Tel.*) Talook, 1881. Madanapully (Madanapalle,* *Tel.*) Talook, 1882. Voilpaud (Váyalpádu, *Tel.* Váyalpád *) Talook, 1879. Ganjam. { Goomsoor (Ghumsará, *Tel.* Goomsur *) Talook, 1879. Jalantra * (*Tel.*) Zemindarry, 1879. Parlakimedy (Parlákimedi,* *Tel.*) Zemindarry, 1885.	These have been mapped as required on special occasions, and number some 1,650 mostly on the Neilgherries and Shevaroys. They are on different scales, the average being that of Government villages, or 16 inches to the mile. The price is 1 rupee per 100 acres, and an additional rupee for every additional 100 acres. The Survey Office has published a catalogue.	These are very various in scale and price. They are classified as follows:— (1.) Maps of Towns, Cantonments, and Municipalities. (2.) Maps of Settlements. (3.) Maps of Districts showing new boundaries of talooks (mostly ½ inch to the mile). (4.) Maps of Local Fund Circles (⅛ inch to the mile). (5.) Maps of Districts for District Manuals. (6.) Maps of Districts showing divisional charges, principal roads, &c. (⅛ inch to the mile). (7.) Maps of Railway Stations ($\frac{1}{16}$ inch to the mile). (8.) Maps of Salt Factories. (9.) Maps of Forest Reserves. (10.) Maps of Plantation Reserves. (11.) Maps of Fuel Reserves. (12.) Hydrographic Maps of Talooks (1 inch to the mile). (13.) Various Maps. The Survey Office have published a detailed catalogue.
Arcot, North ...	Arcot *(Árkkádu, *Tam.*) Talook, 1875. *Chundragherry* (Chandragiri,* *Tel.*) *Talook.* *Chittore* (Chittúru, *Tel.* Chittoor *) *Talook.* Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam,*) Talook, 1881. *Pulmanair* (Palamanéri, *Tel.* Palmanér *) *Talook.* Poloor (Pólúru, *Tam.* Pólúr *) Talook, 1879. Vellore * (Vélúr, *Tam.*) Talook, 1876. Wallajahpett (Válásáppéttai, *Tam.* Wálajápet *) Talook, 1876. *Wandiwash* * (Vandavási, *Tam.*) *Talook.* *Poonganore* (Punganúru, *Tel.* Punganúr *) *Zemindarry.* Cungoondy (Kangundi,* *Tel.*) Zemindarry, 1882. Calastry (Kálahasti,* *Tel.*) Zemindarry, 1875. Carvetnugger (Kárvétinagaramu, *Tel.* Kárvetnagar *) Zemindarry, 1879. Arnee (Árani, *Tam.* Árni *) Zemindarry, 1878.			
Arcot, South ...	Chidambaram* (Shithambaram, *Tam.*) Talook; 2 inches to the mile, 1870. *Cuddalore* * (Kúdalúr, *Tam.*) *Talook.* *Cullacoorchy* (Kallakkuriççi, *Tam.* Kallakurchi *) *Talook.* *Tindivanam* * (*Tam.*) *Talook.* *Tricalore* (Tirukkóyilúr, *Tam.* Tirukoilúr *) *Talook.* *Trinomallee* (Tiruvannámalai,* *Tam.*) *Talook.* *Villoopooram*(Villuppuram, *Tam.* Villupuram *) *Talook.* *Vriddhachellam* (Viruttáççalam, *Tam.* Vriddháchalam *)*Talook.*			

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Bellary ...	*Adony* (Ádaváni, *Tel.* Ádóni *) *Talook.* *Auloor* (Álúru, *Tel.* Álúr) *Talook.* *Bellary* * (Ballári, *Tel.*) *Talook.* *Coodligy* (Kúdligi,* *Tel.*) *Talook.* *Hurpanhully* (Harapanahalli, *Can.* Harpanahalli *) *Talook.* *Hoovinhadgally* (Húvinahadagalli, *Can.* Huvinahadgalli *) *Talook.* *Hospett* (Hosapéte, *Can.* Hospet *) *Talook.* *Royadroog* (Ráyadurgamu, *Tel.* Ráyadrug *) *Talook.*	Madura. Bodinaickanoor (Pódináyakkanúr, *Tam.* Bodináyakanúr *) Zemindarry, 1879. Dindigul * (Tindukkal, *Tam.*) Talook, 1885. Guntamanaickanoor (Kandamanáyakkanúr, *Tam.* Gandamanáyakanúr *) Zemindarry, 1880. Mailoor (Mélúr, *Tam.* Melúr *) Talook, 1885. Pulney (Pazhani, *Tam.* Palni *) Talook, 1880. Periyacoolam (Periyakkulam, *Tam.* Periyakulam *) Talook, 1880.		
Canara, South.	*Cassergode* (Kásaragódu, *Can.* Kásaragód *) *Talook.* *Coondapore* (Kundápura, *Can.* Coondapoor *) *Talook.* *Mangalore* * (Mangalúru, *Can.*) *Talook.* *Oodipy* (Udipi,* *Can.*) *Talook.* *Ooppinangady* (Uppinangadi,* *Can.*) *Talook.*	Salem. Dharmapoory (Tarumappuri, *Tam.* Dharmapuri*) Talook, 1867. Oossoor (Hosúru, *Can.* Hosúr*) Talook, 1870. Tripatore (Tiruppattúr, *Tam.* Tirupatúr *) Talook, 1868. Ootancaray (Úttangarai, *Tam.* Úttankarai *) Talook, 1879.		
Chingleput, 1874	Chingleput * (Shengalppattu, *Tam.*) Talook, 1874. Conjeeveram * (Káñjíppuram, *Tam.*) Talook, 1874. Madrantacam (Mathurándagam, *Tam.* Madurántakam*) Talook, 1874. Ponnairy (Ponnéri,* *Tam.*) Talook, 1872. Sydapett (Shaitháppéttai, *Tam.* Saidápet *) Talook; 2 inches to the mile, 1870. Trivellore (Tiruvallúr,* *Tam.*) Talook, 1874.	(3.) Maps on the scale of 16 inches to a mile of 28 village circuits in the Merkoonaud and 34 village circuits in the Todanaud divisions may be had on application to the Collector, Neilgherry District. Price 1 rupee per 100 acres up to 500 acres, and an additional rupee for every additional 500 acres.		
Coimbatore ...	Bhawany (Paváni, *Tam.* Bhaváni *) Talook, 1875. Coimbatore * (Kóyamuttúr, *Tam.*) Talook, 1879. Caroor (Karúr,* *Tam.*) Talook, 1876. *Collegaul* (Kollégálam, *Tam.* Kollegál *) *Talook.* Dharaupooram (Táráppuram, *Tam.* Dhárápuram *) Talook, 1876. Erode * (Íródu, *Tam.*) Tal. 1874. Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *) Tal. 1878. Pulladam (Palladam,* *Tam.*) Talook, 1876. Pollachy (Pollácçi, *Tam.* Pollách i *) Talook, 1876. Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam *) Talook, 1876.			
Cuddapah ...	Budwail (Badvélu, *Tel.* Badvél*) Talook, 1876. Cuddapah * (Kadapa, *Tel.*) Talook, 1875. Jummalmudoogoo (Jammalamadugu,* *Tel.*) Talook, 1874. *Kadiry* (Kadiri,* *Tel.*) *Talook.* *Madanapully* (Madanapalle,* *Tel.*) *Talook.* Poollampett (Pullampéta, *Tel.* Pullampet *) Talook, 1877. Poolivendla (Pulivendala, *Tel.* Pulivendla *) Talook, 1880. Proddootore (Proddutúru, *Tel.* Proddutur *) Talook, 1874. Royachoty (Ráyatsóti, *Tel.* Ráyachóti *) Talook, 1879. Sidhout (Siddhavattamu, *Tel.* Siddhavattam *) Talook, 1875. *Voilpaud* (Váyalpádu, *Tel.* Váyalpád *) *Talook.*			

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Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Ganjam ...	Berhampore * (Brahmapuramu, *Tel.*) Talook, 1876.			
	Goomsoor (Ghumsará, *Tel.* Goomsur *) *Talook.*			
	Paulore (Pálúru, *Tel.* Pálúr *) *Zemindarry.*			
	Hoomma (Humma, *Tel.*) *Zemindarry.*			
	Cullicote (Kallikóta, *Tel.* Kallikót *) *Zemindarry.*			
	Biridy (Biroli, *Oor.* Biridi *) *Zemindarry.*			
	Chicacole* (Shríkákulamu, *Tel.*) Talook.			
	Shreecoormam (Shríkurmamu, *Tel.*) *of Vizianagram* (Vijayanagaramu, *Tel.*) *Zemindarry.*			
	Caracavalsa (Karakavalasa, *Tel.*) *Zemindarry*; included in Chicacole* (Shríkákulamu, *Tel.*) Talook, 1874.			
	Moonagavalsa (Munagavalasa, *Tel.*) *Zemindarry.*			
	Gottipully (Gottipalli, *Tel.*) *Zemindarry.*			
	Tekkaly (Tekkali,* *Tel.*) Zemindarry, 1883.			
	Tarlah (Tarlá,* *Tel.*) Zemindarry, 1879.			
	Saukipully (Tsákipalli, *Tel.*) *Zemindarry.*			
	Consoolacottore (Konusulakottúru, *Tel.*) *Zemindarry.*			
	Tarlipett (Tarlipéta, *Tel.*) *Zemindarry.*			
	Chinnatoongam (Chinnatungamu, *Tel.*) *Zemindarry.*			
	Peddatoongam (Peddatungamu, *Tel.*) *Zemindarry.*			
	Talavalasa (*Tel.*) or *Talabhadra* (*Tel.*) *Zemindarry.*			
	Jarjanjy (Jarjanji, *Tel.*) *Zemindarry.*			
	Yellamanchily (Yellamanchili, *Tel.*) *Zemindarry.*			
	Boddaum (Boddámu, *Tel.*) *Zemindarry.*			
	Belamarapalavalasa (*Tel.*) *Zemindarry.*			
	Gopalpore (Gópálapuramu, *Tel.* Gopálpur*) *Zemindarry.*			
	Chittivalsa (Chittivalasa, *Tel.*) *Zemindarry.*			
	Parlakimedy (Parlákimedi,* *Tel.*) Zemindarry, 1874.			
	Oorlaum (Urlámu, *Tel.* Urlám *) *Zemindarry.*			
	Danta (*Tel.*) *Zemindarry.*			
	Tilaury (Tilári, *Tel.*) *Zemindarry.*			
	Sowdaum (Saudámu, *Tel.* Savudám *) *Zemindarry.*			
	Akkavalasa (*Tel.*) *Zemindarry.*			
	Santa Lutchmeepooram (Sánta Lakshmípuramu, *Tel.*) *Zemindarry.*			
	Jalasamoodram (Jalasamudramu, *Tel.*) *Zemindarry.*			
	Soosaraum (Susarámu, *Tel.*) *Zemindarry.*			
	Rajapooram (Rájapuramu, *Tel.*) *Zemindarry.*			
	Sidibehera Cottoor (Sidibehara Kottúru, *Tel.*) *Zemindarry.*			
	Zonnapaud (Dzonnapádu, *Tel.*) *Zemindarry.*			
	Moolagam (Múlagamu, *Tel.*) *Zemindarry.*			
	Atagadah (Atogodo, *Oor.* Átagadá *) *Zemindarry.*			

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italics are not yet executed.	Villages.	Estates.	Miscellaneous.
Ganjam—(Continued).	*Pedda Kimedy* (Pedda Kimedi,* *Tel.*) *Zemindarry.*			
	Cheekaty (Chíkati,* *Tel.*) Zemindarry, 1878.			
	Soorangy (Surangi,* *Tel.*) *Zemindarry.*			
	Jarada (Dzarada, *Tel.*) *Zemindarry.*			
	Jalantra * (*Tel.*) *Zemindarry.*			
	Barwah (Báruva,* *Tel.*) *Zemindarry.*			
	Mundasa (Mandasá, *Tel.* Mandasa*) Zemindarry, 1883.			
	Boodaurasinghy (Budárashingi, *Tel.*) *Zemindarry.*			
	Atagadah (Atogodo, *Oor.* Átagadá*) *Zemindarry.*			
	Dhauracote (Dhárákóta, *Tel.* Dhárákót*) *Zemindarry.*			
	Shergadah (Shérugadá, *Tel.* Sérgadá*) *Zemindarry.*			
	Chinna Kimedy (Chinna Kimedi,* *Tel.*) or *Prataupagherry* (Pratápagiri, *Tel.*) *Zemindarry.*			
	Aska* (Ashiká, *Tel.*) Zemindarry, 1878.			
	Devabhoomy (Dévabhúmi,* *Tel.*) *Zemindarry.*			
	Coorla (Kurla,* *Tel.*) *Zemindarry.*			
	Bodagooda (Bodaguda, *Tel.*) *Zemindarry.*			
Godavery ...	Amalaupooram (Amalápuramu, *Tel.* Amalápuram*) Talook, 1866.			
	Bhadrachellam (Bhadráchalamu, *Tel.* Bhadráchalam*) *Talook.*			
	Bheemavaram (Bhímavaramu, *Tel.* Bhímavaram*) Talook, 1863.			
	Ellore* (Ellúru, *Tel.*) Talook, 1873.			
	Narsapore (Narasápuramu, *Tel.* Narsápur*) Talook, 1863.			
	Peddapore (Peddápuramu, *Tel.*) Peddápuram*) Talook, 1874.			
	Rajahmundry* (Rájamahéndravaramu, *Tel.*) Talook, 1870.			
	Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuram*) Talook.			
	Tanookoo (Tanuku,* *Tel.*) Talook, 1862.			
	Yernagoodem (Yernagúdemu, *Tel.* Yernagúdem*) Talook, 1870.			
	Pittapore (Pit'hápuramu, *Tel.* Pithápuram*) Zemindarry, 1881.			
	Cocanada* (Kákináda, *Tel.*) Zemindarry, 1881.			
Kistna, 1874 ...	*Toony* (Tuni,* *Tel.*) *Zemindarry.*			
	Bunder (Bandaru, *Tel.* Bandar*) Talook, 1871.			
	Baupatla (Bápatla,* *Tel.*) Talook, 1870.			
	Bezwada (Bedzaváda, *Tel.* Bezváda*) Talook, 1871.			
	Goodivauda (Gudiváda,* *Tel.*) Talook, 1871.			
	Goontoor (Guntúru, *Tel.* Guntúr*) Talook, 1871.			
	Nundigauma (Nandigáma,* *Tel.*) Talook, 1871.			
	Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet*) Talook, 1871.			
	Pulnaud (Pálnádu, *Tel.* Palnád*) Talook, 1874.			

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Kistna, 1874—(*Continued*).	Repully (Répalle,* *Tel.*) Talook, 1871.			
	Sattenapully (Sattenapalle,* *Tel.*) Talook, 1871.			
	Vinoocondah (Vinukonda,* *Tel.*) Talook, 1873.			
	Noozveed (Nújivídu, *Tel.* Núzvíd *) *Zemindarry.*			
	Vissanapett (Vissannapéta, *Tel.*) *Zemindarry.*			
Kurnool, 1874.	Cumbum * (Kambhamu, *Tel.*) Talook, 1875.			
	Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla *) Talook, 1874.			
	Marcapore (Márkápuramu, *Tel.* Márkápur *) Talook, 1876.			
	Nundicotcore (Nandikótukúru, *Tel.* Nandikótkur *) Talook, 1874.			
	Nundiaul (Nandyála, *Tel.* Nandyál *) Talook, 1874.			
	Putticondah (Pattikonda,* *Tel.*) Talook, 1876.			
	Ramalcottah (Rámallakóta, *Tel.* Rámallakót *) Talook, 1874.			
	Sirwail (Chiruvella, *Tel.* Sirvel *) Talook, 1874.			
	Bunganapully (Banganapalle,* *Tel.*) *Zemindarry.*			
Madras; 6 inches to the mile, 1874.	Madras * (Shennappattanam, *Tam.*) Talook; 1 inch to 100 feet, showing holdings of the 8 revenue divisions, 1883.			
Madura ...	*Dindigul* * (Tindukkal, *Tam.*) *Talook.*			
	Madura * (Mathurai, *Tam.*) *Talook.*			
	Mailoor (Mélúr, *Tam.* Melúr *) *Talook.*			
	Periyacoolam (Periyakkulam, *Tam.* Periyakulam *) *Talook.*			
	Pulney (Pazhani, *Tam.* Palni *) *Talook.*			
	Tiroomungalam (Tirumangalam,* *Tam.*) *Talook.*			
	Ramnaud (Rámanáthapuram, *Tam.* Ramnad *) *Zemindarry.*			
	Shivagunga (Shivakkangai, *Tam.* Sivaganga *) *Zemindarry.*			
Malabar ...	*Calicut* * (Kozhikkóta, *Mal.*) *Talook.*			
	Chiracal (Chirakkal, *Mal.* Chirakal *) *Talook.*			
	Cottayam (Kóttayam,* *Mal.*) *Talook.*			
	Cooroombranaud (Kurumbranátu, *Mal.* Kurumbranád *) *Talook.*			
	Yernaud (Éranátu, *Mal.* Ernád *) *Talook.*			
	Palghaut (Pálakkátu, *Mal.* Pálghat *) *Talook.*			
	Ponnany (Ponnáni, *Mal.* Ponáni *) *Talook.*			
	Valavanaud (Valluvanátu, *Mal.* Walawanád *) *Talook.*			
	Wynaud (Vayanátu, *Mal.* Wynaad *) *Talook.*			
Neilgherry ...	Coonoor * (Kunnúr, *Tam.*) Deputy Tahsildarry; 24 inches to the mile, showing holdings, 1869.			
	Goodalore (Kúdalúr, *Tam.* Gúdalúr *) Deputy Tahsildarry; included in 4 inch map of Numbalagode (Nampalakkotu, *Mal.*) Amshom, 1880.			
	Ootacamund * (Ottagaimandu, *Tam.*) Deputy Tahsildarry; 24 inches to the mile, showing holdings, 1873.			

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Nellore, 1873 ...	Atmacore (Átmakúru, *Tel.* Atmakúr *) Talook, 1873. Cauvaly (Kávali,* *Tel.*) Talook, 1870. Cundoocore (Kandukúru, *Tel.* Kandukúr*) Talook, 1872. Canigherry (Kanigiri,* *Tel.*) Talook, 1874. Goodoor (Gúdúru, *Tel.* Gúdúr *) Talook, 1873. Nellore * (Nellúru, *Tel.*) Talook, 1871. Ongole * (Vangólu, *Tel.*) Talook, 1872. Oodayagherry (Udayagiri,* *Tel.*) Talook, 1874. Raupore (Rápúru, *Tel.* Rápúr *) Talook, 1873. Darshy. (Darishi, *Tel.* Darsi *) Zemindarry, 1874. Podily (Podile, *Tel.* Podili *) Zemindarry, 1874. Vencatagherry (Venkatagiri,* *Tel.*) Zemindarry, 1874. Poloor (Pólúru, *Tel.* Pólúr *) Zemindarry, 1874.			
Salem	Ahtoor (Áttúr, *Tam.* Atúr *) Talook, 1875. *Dharmapoory* (Tarumappuri, *Tam.* Dharmapuri *) *Talook.* Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *) Talook, 1879. Namcull (Námakkal, *Tam.* Námakal *) Talook, 1875. *Ootancaray* (Úttangarai, *Tam.* Úttankarai *) *Talook.* *Oossoor* (Hosúru, *Can.* Hosúr *) *Talook.* Salem * (Shélam, *Tam.*) Talook, 1876. Trichengode (Tiruççengódu, *Tam.* Tiruchengód *) Talook, 1878. *Tripatore* (Tiruppattúr, *Tam.* Tirupatúr *) *Talook.*			
Tanjore ...	*Combaconam* (Kumbagónam, *Tam.* Kumbakónam*) *Talook.* *Mayavaram* (Máyavaram,* *Tam.*) *Talook.* *Munnargoody* (Mannárkkudi, *Tam.* Mannárgudi *) *Talook.* *Nunnilam* (Nannilam,* *Tam.*) *Talook.* *Negapatam* * (Nágappattanam, *Tam.*) *Talook.* *Puttoocottah* (Pattukkóttai, *Tam.* Patukóta *) *Talook.* *Shiyally* (Shiyyázhi, *Tam.* Shiyáli *) *Talook.* *Tanjore* * (Tañjávúr, *Tam.*) *Talook.* *Tritrapoondy* (Tiruttaruppúndi, *Tam.* Tiruturaipúndi *) *Talook.*			
Tinnevelly, 1874.	Nangoonairy (Nángúnéri, *Tam.* Nángunéri *) Talook, 1873. Ottapidauram (Óttappidáram, *Tam.* Otapidáram *) Talook, 1874. Shautore (Sháttúr, *Tam.* Sátúr *) Talook, 1875. Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *) Talook, 1874. Shreevillipoottore (Shirívilliputtúr, *Tam.* Srívilliputur *) Talook, 1875.			

1	2	3	4	5
Districts. Scale ½ inch to the mile. List shown complete; those marked in italic are not yet executed.	Talook or detached Zemindarry tracts. Scale 1 inch to the mile unless otherwise noted. List shown complete; those marked in italic are not yet executed.	Villages.	Estates.	Miscellaneous.
Tinnevelly, 1874 —(*Continued*).	Tencaray (Tengarai, *Tam.* Tenkarai *) Talook, 1874. Tencausy (Tengási, *Tam.* Tenkási *) Talook, 1874. Tinnevelly * (Tirunelvéli, *Tam.*) Talook, 1872. Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *) Talook, 1874.			
Trichinopoly, 1875.	Coolitalay (Kulittalai, *Tam.* Kulitalai *) Talook, 1873. Moosiry (Musiri,* *Tam.*) Talook, 1863. Oodayarpolliem (Udaiyárppálaiyam, *Tam.* Udayárpálaiyam *) Talook, 1862. Perambalore (Perambalúr,* *Tam.*) Talook, 1862. Trichinopoly * (Tiruççináppalli, *Tam.*) Talook; 2 inches to the mile, 1870. Cadayoor (Kadavúr,* *Tam.*) Zemindarry. Maroongapoory (Marungáppuri, *Tam.* Marungápuri *) Zemindarry.			
Vizagapatam ...	*Golcondah* (Golugonda, *Tel.* Golgonda *) *Talook.* *Sarwasiddhy* (Sarvasiddhi,* *Tel.*) *Talook.* *Vizagapatam* * (Vishákhapatnamu, *Tel.*) *Zemindarry.* *Srungavarapoocote* (Shringavarapukóta, *Tel.*) *Zemindarry.* *Veeravilly* (Víravilli, *Tel.*) *Zemindarry.* *Ankapully* (Anakápalle,* *Tel.*) *Zemindarry.* *Bobbily* (Bobbili,* *Tel.*) *Zemindarry.* *Saulore* (Sálúru, *Tel.* Sálúr *) *Zemindarry.* *Parvatipore* (Párvatípuramu, *Tel.* Párvatipur *) *Zemindarry.* *Palcondah* (Pálakonda, *Tel.* Pálkonda *) *Zemindarry.* *Cheepoorpully* (Chípurupalle,* *Tel.*) *Zemindarry.* *Bimlipatam** (Bhímunipatnamu, *Tel.*) *Zemindarry.* *Vizianagram** (Vijayanagaram, *Tel.*) *Zemindarry.* *Gujapatinugger* (Gajapatinagaramu, *Tel.* Gajapatinagar *) *Zemindarry.* *Jeypore* * (Jayapuramu, *Tel.*) *Zemindarry.* *Navarungapore* (Navarangapuramu, *Tel.*) *Zemindarry.* *Mulkangherry* (Malakangiri, *Tel.*) *Zemindarry.* *Coraputt* (Kórápatti, *Tel.*) *Zemindarry.* *Pottinghy* (Pottángi, *Tel.*) *Zemindarry.*			

APPENDIX No. LXIX.

TABLE SHOWING THE TALOOKS IN THE PRESIDENCY FOR WHICH THE MADRAS SURVEY DEPARTMENT HAVE PREPARED ALPHABETICALLY ARRANGED TOPOGRAPHICAL LISTS OF VILLAGES.

District.	Talook.	District.	Talook.
Anantapore ...	Gooty * (Gutti, Tel.).	Ganjam ...	Berhampore * (Brahmapuramu, Tel.).
	Tadpatry (Tádiparti, Tel. Tadpatri *).		Goomsoor (Ghumsará, Tel. Goomsur *).
	Penoocondah (Penukonda,* Tel.).		Chicacole * (Shríkákulamu, Tel.).
Arcot, North ...	Chittore (Chittúru, Tel. Chittoor *).	Kistna ...	Bunder (Bandaru, Tel. Bandar *).
	Chundragherry (Chandragiri,* Tel.).		Goodivauda (Gudiváda,* Tel.).
	Pulmanair (Palamanéri, Tel. Palmanér*)		Bezwada (Bedzaváda, Tel. Bezváda *).
	Goodiyattam (Goodiyáttam, Tam. Gudiyátam *).		Nundigauma (Nandigáma,* Tel.).
	Vellore * (Vélúr, Tam.).		Goontoor (Guntúru, Tel. Guntúr *).
	Wallajahpett (Válásáppéttai, Tam. Wálajápet *).		Repally (Répalle,* Tel.).
	Poloor (Pólúru, Tam. Pólúr *).		Baupatla (Bápatla,* Tel.).
	Wandiwash * (Vandavási, Tam.).		Narsarowpett (Narasarávupéta, Tel. Narsaraopet *).
	Arcot * (Árkkádu, Tam.).		Vinoocondah (Vinukonda,* Tel.).
Arcot, South ...	Chidambaram * (Shithambaram, Tam.).		Sattenapully (Sattenapalle,* Tel.).
	Trinomallee (Tiruvannámalai,* Tam.).		Pulnaud (Palnádu, Tel. Palnád *).
	Cuddalore * (Kúdalúr, Tam.).		Vissannapett (Vissannapéta, Tel.) division.
	Cullacoorchy (Kallakkuriççi, Tam. Kallakurchi *).		Noozveed (Nújivídu, Tel. Núzvíd *) zemindarry.
	Vriddhachellam (Viruttáççalam, Tam. Vriddháchalam *).	Kurnool ...	Nundiaul (Nandyála, Tel. Nandyál *).
	Tricalore (Tirukkóyilúr, Tam. Tirukoilúr *).		Sirwail (Chiruvella, Tel. Sirvel *).
	Tindivanam * (Tam.).		Coilcoontla (Kóyilakuntla, Tel. Koilkuntla *).
	Villoopooram (Villuppuram, Tam. Villupuram *).		Putticondah (Pattikonda,* Tel.).
Bellary ...	Bellary * (Ballári, Tel.).		Marcapore (Márkápuramu, Tel. Márkápur *).
	Adony (Ádaváni, Tel. Ádóni *).		Cumbum * (Kambhamu, Tel.).
	Hospett (Hosapéte, Can. Hospet *).	Madura ...	Tiroomungalam (Tirumangalam,* Tam.).
	Auloor (Álúru, Tel. Álúr *).		Madura * (Mathurai, Tam.).
Chingleput ...	Chingleput * (Shengalppattu, Tam.).		Dindigul * (Tindukkal, Tam.).
	Sydapett (Shaitháppéttai, Tam. Saidápet *).		Mailoor (Mélúr, Tam. Melúr *).
	Conjeeveram * (Káñjíppuram, Tam.).		Periyacoolam (Periyakkulam, Tam. Periyakulam *).
	Ponnairy (Ponnéri, * Tam.).		Pulney (Pazhani, Tam. Palni *).
	Trivellore (Tiruvallúr,* Tam.).		Shivagunga (Shivakkangai, Tam. Sivaganga *) zemindarry.
	Madrantacam (Mathurándagam, Tam. Madurántakam *).	Neilgherry ...	Merkoonaud (Mérkunádu, Tam. Merkunád *) division.
Coimbatore ...	Coimbatore * (Kóyamuttúr, Tam.).		Todanaud (Tódanádu, Tam. Tódanád *) division.
	Bhawany (Paváni, Tam. Bhaváni *).		Paranginaud (Paranginádu, Tam. Paranginád *) division.
	Pulladam (Palladam,* Tam.).		Coondahnaud (Kundánátu, Mal.) division.
	Suttimungalam (Shattiyamangalam, Tam. Satyamangalam *).	Nellore ...	Nellore * (Nellúru, Tel.).
	Erode * (Íródu, Tam.).		Goodoor (Gúdúru, Tel. Gúdúr *).
	Dharaupooram (Táráppuram, Tam. Dhárápuram *).		Raupore (Rápúru, Tel. Rápúr *).
	Caroor (Karúr,* Tam.).		Atmacore (Átmakúru, Tel. Atmakúr *).
	Oodamalpett (Udumalppéttai, Tam. Udamalpet *).		Cauvaly (Kávali,* Tel.).
	Collegaul (Kollégélam, Tam. Kollegál*).		Oodayagherry (Udayagiri,* Tel.).
	Pollachy (Polláççi, Tam. Polláchi *).		Canigherry (Kanigiri,* Tel.).
Cuddapah ...	Cuddapah * (Kadapa, Tel.).		Cundoocore (Kandukúru, Tel. Kandukúr *).
	Madanapully (Madanapalle,* Tel.).		Ongole * (Vangólu, Tel.).
	Kadiry (Kadiri,* Tel.).		Vencatagherry (Venkatagiri,* Tel.) division.
	Jummalmudoogoo (Jammalamadugu,* Tel.).		Poloor (Pólúru, Tel. Pólúr *) division.
	Proddootore (Proddutúru, Tel. Proddutur *).		Podily (Podile, Tel. Podili *) do.
	Sidhout (Siddhavattamu, Tel. Siddhavattam *).		Darshy (Darishi, Tel. Darsi *) do.
	Budwail (Badvélu, Tel. Badvél *).	Salem ...	Salem * (Shélam, Tam.).
	Poollampett (Pullampéta, Tel. Pullampet *).		Ahtoor (Áttúr, Tam. Atúr *).
	Royachoty (Ráyatsóti, Tel. Ráyachóti *).		Namcull (Námakkal, Tam. Námakal *).
	Voilpaud (Váyalpádu, Tel. Váyalpád *).		Trichengode (Tiruççengódu, Tam. Tiruchengód *).
	Poolivendla (Pulivendala, Tel. Pulivendla *).		Oossoor (Hosúru, Can. Hosúr *).

District.	Talook.	District.	Talook.
Salem—(*Cont.*).	Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *).	Tinnevelly ...	Tinnevelly * (Tirunelvéli, *Tam.*).
	Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).		Ottapidauram (Óttappidáram, *Tam.* Otapidáram *).
	Ootancaray (Úttangarai, *Tam.* Úttankarai *).		Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *).
	Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *).		Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputúr *).
Tanjore ...	Tanjore * (Tañjávúr, *Tam.*).		Shautore (Sháttúr, *Tam.* Sátúr *).
	Shiyally (Siyyázhi, *Tam.* Shiyáli *).		Tencaray (Tengarai, *Tam.* Tenkarai *).
	Combaconam (Kumbagónam, *Tam.* Kumbakónam *).		Nangoonairy (Nángúnéri, *Tam.* Nángunéri *).
	Nunnilam (Nannilam,* *Tam.*).		Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).
	Mayavaram (Máyavaram,* *Tam.*).		Tencausy (Tengási, *Tam.* Tenkási *).
	Tritrapoondy (Tiruttaruppúndi, *Tam.* Tiruturaipúndi *).	Trichinopoly...	Trichinopoly * (Tiruççináppalli, *Tam.*).
	Negapatam * (Nágappattanam, *Tam.*).		Moosiry (Musiri,* *Tam.*).
	Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).		Coolitalay (Kulittalai, *Tam.* Kulitalai *).
			Perambalore (Perambalúr,* *Tam.*).
			Oodayarpolliem (Udaiyarppalaiyam, *Tam.* Udayárpálaiyam *).

APPENDIX No. LXX.

LIST OF ARTICLES SUPPLIED BY THE GOVERNMENT STATIONERY OFFICE TO THE DIFFERENT DEPARTMENTS AND OFFICES, WITH PARTICULARS.

(*a*) Paper.

Technical name.	Colour or other description indicating quality.	Weight per ream of 20 quires or 480 folio sheets.	Size per broadside.	Approximate price per ream.	Amount allowed.
		LB.	INCHES.	RS. A. P.	
Writing Paper, Imperial	Machine made...	72	30 × 22	31 8 11	
" Royal	Do. ...	44	24 × 19	24 6 11	
" Medium	Do. ...	34	22 × 17½	14 14 6	
" Demy	Do. ...	24	20 × 15½	10 7 5	
" Foolscap	Hand made ...	15	16½ × 13¼	9 6 4	
	Machine made, cream.	...	...	...	
	Wove	14	16½ × 13¼	4 4 0	
	Creamlaid, white.	10	16½ × 13½	1 14 5	
" Octavo Post	Machine made, cream.	...	...	...	
	Wove	6	7⅛ × 4½	2 0 0	
" Blotting	......	32	22 × 18	8 0 0	
" Marble of different weights and sizes.	......	...	...	9 4 6	
Printing Paper, D. D. Pott	Thick	46	25 × 31	9 2 0	
" "	Thin	28	25 × 31	4 14 6	
" Double Pott	Thin	14	15½ × 25	2 7 7	
" Imperial	......	26	22 × 30	4 13 10	
" Double Royal	......	50	25 × 40	11 11 4	
" "	......	35	25 × 40	6 3 5	
" Royal, Fine	Thick	28	20 × 25	5 9 0	Average annual expenditure.
" " "	Thin	18	20 × 25	4 3 4	
" Medium	......	25	18½ × 23½	4 10 11	
" "	......	16	19 × 24	3 0 7	
" Double Demy	......	34	22½ × 35	6 15 4	
" Demy	Superior ...	25	17½ × 22½	4 5 10	
" "	......	17	17½ × 22½	3 3 6	
" Double Foolscap	......	28	17 × 27	4 14 8	
" "	......	25	17 × 27	4 2 10	
" "	......	21	17 × 27	3 10 7	
" "	......	16	17 × 27	2 9 8	
" Foolscap	Thick	12	13½ × 17	2 6 3	
Country Paper, Packing	Brown	50	23 × 16	4 0 0	
" Cartridge	......	60	25½ × 21	4 10 0	
" Demy	......	18	20 × 16	3 10 0	
" Foolscap	......	16	16 × 13	2 12 0	
" Chellan Medium	......	20	22½ × 18	3 10 0	
" " Demy	......	17	20 × 16	3 8 0	
" " Foolscap ...	......	14	16 × 13	3 0 0	
" Badamy, Royal	......	25	25 × 20	4 6 10	
" "	......	20	25 × 20	3 8 8	
" Bally Paper No. 31 ...	......	46	22½ × 29	7 3 0	
" " " 13 ...	......	20	18 × 22	3 8 8	

(*b*) Miscellaneous Articles.

Name of articles.	Denomination by which supplied.	Amount allowed.
Books, L. B., Royal, 4 quires	No.	
" " Medium "	"	
" " Demy "	"	
" " Foolscap "	"	
" Marble Cover, Demy	"	
" " Foolscap	"	Average annual expenditure.
" " Memo. Quarto ...	"	
" " Memo. Octavo ...	"	
Paste Boards, Europe	"	
" Country	"	

(*b*) MISCELLANEOUS ARTICLES—(*Continued*).

Name of articles.	Denomination by which supplied.	Amount allowed.
Printing Ink, Black, superior	Lb.	Specially provided for the Government Gazette Press and Collectorates.
" in portable tins	"	
" Blue	"	
" " for ruling	"	
" Red	"	
" " for ruling	"	
Writing Ink Powder, Black	Papers.	Average annual expenditure.
" " Fuchsine	Oz.	
Pencils, Lead, Black	No.	Draughtsmen 6, Heads of Depts. and Acctts. 4, Clerks 2, and Moochees 6—annually.
" Red	"	Heads of Departments and Acctts. 4, i.e., 2 Red and 2 Blue—annually.
" Blue	"	
" Slate	"	Average annual expenditure.
Pens, Steel, Fine point	"	In proportion of ⅛ broad, ⅜ medium and ½ fine, Hds. of Depts. 12 Q. or 6 S. P., Clerks 2 Q. and 4 S. P., Accountants 3 Q. and 2 S. P., Draughtsmen and Moochees 2 Q. and 1 S. P., Estimate makers 2 Q. and 3 S. P.
" Medium	"	
" Broad	"	
Miscellaneous—		
Penholders	No.	Annually 1 to each person using steelpen.
Quills, Office	"	Vide remarks on steelpens.
Indian Rubber	Pieces.	Heads of Depts. and Draughtsmen 1 oz., others ½ oz. —annually.
Wafers	Boxes.	Average annual expenditure.
Press Blanketting	Yds.	According to estimate previously furnished.
Salampore Cloth	"	1 yard to every 9 Clerks and 1 yard to each Peon of Offices at the Presidency.
Long Cloth	"	For mounting plans only as estimated for.
Waxed Cloth	"	Average annual expenditure.
Cotton Thread, Twist	Lb.	
" Coloured	"	
" Europe, in balls	"	
Glue	"	
Gum	"	Do. only to Presidency Offices.
Lamp-black	"	Average annual expenditure.
Pins	Papers.	
Needles, Common	No.	
" Sail or 3-cornered	"	
Sealing-wax, Red	Lb.	
Tape, Red	Rolls.	
" White, Broad	"	
" " Narrow	"	
" " in pieces	"	
" Red "	Pieces.	
Twine, Europe	Lb.	
" Country	"	
" Hemp, Fine	"	
Indian Ink	Cakes.	
Hones	No.	One for 8 years to each Office.
Strops	"	
Scissors	"	One for 5 years to each Moochee.
Penknives	"	One per man for 4 years.
Slates	"	One to each Accountant for 5 years, when necessary.
Inkstands, complete, Ebony	"	Head of Department one for 10 years.
" " Wooden	"	One per man for Clerks, &c., for 10 years.
Rulers, Round	"	One per man for 10 years.
Rulers, Flat	"	One to each Moochee for 10 years.
Wooden Flats with Lead	"	One per man for 10 years.
Funnels, Tin	"	As previously estimated for.

APPENDIX No. LXXI.

LIST OF CIVIL HOSPITALS AND DISPENSARIES IN THE PRESIDENCY.

District and Hospital or Dispensary. The latter are distinguished by the letter D.	By whom supported.	Number of beds available.		Percentage of total cost paid by Government.
		Males.	Females.	
ANANTAPORE.				
Anantapore (Anantapuramu, *Tel.* Anantapur *)...	Municipality ...	4	4	...
Gooty * (Gutti, *Tel.*)	Private	6	6	...
Calyaundroog (Kalyánadurgamu, *Tel.* Kalyándrúg *) ...	Local Fund ...	5	...	7·03
Penoocondah (Penukonda,* *Tel.*)	Do.	8	6	13·41
Tadpatry (Tádiparti, *Tel.* Tadpatri *)	Do.	6	4	11·76
Ooravacondah, (Uravakonda,* *Tel.*) D	Do.	...	...	10·47
ARCOT, NORTH.				
Arnee (Árani, *Tam.* Árni *) D	Local Fund ...	...	...	...
Chittore (Chittúru, *Tel.* Chittoor *)	Do.	15	15	...
Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam *) D	Do.	...	...	...
Calastry (Kálahasti,* *Tel.*) D	Do.	...	...	...
Pulmanair (Palamanéri, *Tel.* Palmanér *)	Do.	9	9	...
Poloor (Pólúru, *Tam.* Pólúr *) D ...	Do.	...	...	...
Ranipett (Ránippéttai, *Tam.*)	Do.	22	20	11·70
Tripatty (Tiruppathi, *Tam.* Tirupati *) D	Do.	...	...	...
Vellore * (Vélúr, *Tam.*)	Municipality ...	20	10	41·61
Vencatagherrycottah (Venkatagirikóta, *Tel.*) D	Local Fund ...	...	...	...
Wallajahpett (Válásáppéttai, *Tam.* Wálajápet *) D	Municipality ...	...	...	...
Wandiwash * (Vandavási, *Tam.*) D	Local Fund ...	...	...	...
ARCOT, SOUTH.				
Chidambaram * (Shithambaram, *Tam.*)	Municipality ...	9	9	10·74
Cuddalore * (Kúdalúr, *Tam.*)	Do.	16	8	...
Do. (Kúdalúr, *Tam.*) Old Town	Do.	9	3	...
Cullacoorchy (Kallakkuriççi, *Tam.* Kallakurchi *)	Local Fund ...	6	4	8·38
Panrooty (Pannurutti, *Tam.* Panruti *) D	Do.	...	...	18·00
Tindivanam * (*Tam.*)	Do.	12	12	11·00
Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr*)	Do.	8	4	6·73
Trinomallee (Tiruvannámalai,* *Tam.*)	Do.	6	...	21·74
Villoopooram (Villuppuram, *Tam.* Villupuram*)	Do.	6	6	10·73
Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *)	Do.	8	4	10·18
BELLARY.				
Ádony (Ádaváni, *Tel.* Ádóni *)	Municipality ...	6	6	5·79
Auloor (Álúru, *Tel.* Álúr *)	Local Fund ...	4	2	8·60
Bellary * (Ballári, *Tel.*)	Municipality ...	16	4	...
Hurpanhully (Harapanahalli, *Can.* Harpanahalli.*)	Local Fund ...	4	4	14·25
Hospett (Hosapéte, *Can.* Hospet *)	Do.	6	4	11·45
Coodligy (Kúdligi,* *Tel.*) D	Do.	...	...	10·59
Cumply (Kampali, *Tel.* Kampli *) D	Do.	...	...	7·32
Royadroog (Ráyadurgamu, *Tel.* Ráyadrug *) D ...	Do.	...	...	7·66
Sundoor (Sondúru, *Tel.* Sandúr *) D	Private	...	...	...
CANARA, SOUTH.				
Buntwaul (Bantvála, *Can.* Bantvál *)	Local Fund ...	3	3	13·80
Coondapore (Kundápura, *Can.* Coondapoor *)	Do.	4	3	11·39
Caurcal (Kárkala, *Can.*)	Do.	4	2	11·01
Cassergode (Kásaragódu, *Can.* Kásaragód *)	Do.	4	3	12·65
Laccadive Islands (Lakshadvípa, *Can.*) D	Government ...	...	...	100
Mangalore * (Mangalúru, *Can.*)	Municipality ...	12	8	...
Oodipy (Udipi,* *Can.*)	Local Fund ...	6	4	9·12
Poottoor (Puttúru, *Can.*)	Do.	4	4	4·92

District and Hospital or Dispensary. The latter are distinguished by the letter D.	By whom supported.	Number of beds available. Males.	Number of beds available. Females.	Percentage of total cost paid by Government.
CHINGLEPUT.				
Chingleput * (Shengalppattu, *Tam.*)	Local Fund	10	10	0·007
Conjeeveram * (Káñjíppuram, *Tam.*)	Municipality	14	15	25·35
Madrantacam (Mathurándagam, *Tam.* Madurántakam *) D	Local Fund	...	...	...
Naugalpore (Nágaláppuram, *Tam.*) D	Do.	...	...	...
Ponnairy (Ponnéri,* *Tam.*) D	Do.	...	...	...
Poonamallee * (Púvirundamalli, *Tam.*) D	Do.	...	...	...
Sydapett (Shaitháppétai, *Tam.* Saidápet *) D	Do.	...	...	12·35
St. Thomas' Mount * (Parangimalai, *Tam.*)	Government	5	2	100
Suttivaid (Shattiyavédu, *Tam.*) D	Local Fund	...	...	...
Shembiam (*Tam.*) D	Do.	...	...	...
Shreepermatore (Shirípperumbúthúr, *Tam.* Sríperumbudur *) D	Do.	...	...	...
Tirooporoor (Tiruppórúr, *Tam.* Tirupórúr *) D	Do.	...	...	...
Trivellore (Tiruvallúr,* *Tam.*) D	Do.	...	...	...
Ootramallore (Uttiranmérúr, *Tam.*) D	Do.	...	...	...
COIMBATORE.				
Aravacoorchy (Aravakkuriçci, *Tam.* Aravakurchi *) D	Local Fund	...	...	7·03
Bhawany (Paváni, *Tam.* Bhaváni *)	Do.	3	3	13·53
Coimbatore * (Kóyamuttúr, *Tam.*)	Municipality	25	21	...
Dharaupooram (Táráppuram, *Tam.* Dhárápuram *)	Local Fund	4	2	12·00
Erode * (Íródu, *Tam.*)	Municipality	4	4	14·38
Caroor (Karúr, * *Tam.*)	Do.	5	3	14·00
Collegaul (Kollégálam, *Tam.* Kollegál *)	Local Fund	3	3	8·52
Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam *)	Do.	4	4	14·61
Pulladam (Palladam,* *Tam.*)	Do.	2	2	17·42
Pollachy (Polláçci, *Tam.* Polláchi *)	Do.	18	18	10·94
Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam *)	Do.	6	2	12·16
Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *)	Do.	6	4	11·25
CUDDAPAH.				
Budwail (Badvêlu, *Tel.* Badvél *)	Local Fund	6	6	0·24
Cuddapah * (Kadapa, *Tel.*)	Municipality	16	16	...
Jummalmudoogoo (Jammalamadugu,* *Tel.*) D	Local Fund	1	1	...
Kadiry (Kadiri,* *Tel.*) D	Do.	...	...	...
Madanapully (Madanapalle,* *Tel.*)	Do.	37	24	20·51
Poollampett (Pullampéta, *Tel.* Pullampet *)	Do.	...	...	...
Peelair (Píléru, *Tel.* Pílér *) D	Do.	...	...	...
Proddootore (Proddutúru, *Tel.* Proddutur *)	Do.	12	12	...
Poolivendla (Pulivendala, *Tel.* Pulivendla) D	Do.	...	...	...
Royachoty (Ráyatsóti, *Tel.* Ráyachóti *) D	Do.	...	...	...
GANJAM.				
Aska * (Ashiká, *Tel.*)	Local Fund	...	...	...
Berhampore * (Brahmapuramu, *Tel.*)	Municipality	9	7	3·34
Calingapatam * (Kalingapatnamu, *Tel.*) D	Local Fund	...	...	...
Chicacole * (Shríkákulamu, *Tel.*)	Municipality	14	8	70·69
Ganjam * (Ganjámu, *Tel.*)	Local Fund	2	2	...
Gopalpore (Gópálapuramu, *Tel.* Gopálpur *) D	Do.	...	...	32·43
Kimedy (Kimedi, *Tel*)	Do.	10	6	37·52
Sompett (Sómpéta, *Tel.* Sómpet *) D	Do.	...	...	...
Sooradah (Suradá,* *Tel.*) D	Do.	...	...	...
Tekkaly-Ragoonathapooram (Tekkali-Raghunádhapuramu, *Tel.*) D	Do.	...	...	...
GODAVERY.				
Amalaupooram (Amalápuramu, *Tel.* Amalápuram *) D	Local Fund	...	...	...
Bhadrachellam (Bhadráchalamu, *Tel.* Bhadráchalam *) D	Government	...	...	...
Chintalapoody (Chintalapúdi, *Tel.*) D	Local Fund	...	...	...
Cocanada * (Kákináda, *Tel.*)	Municipality	24	12	8·16
Do. Seamen's Hospital	Do.	6	...	...
Dowlaishweram * (Dhavaléshvaramu, *Tel.*) D	Local Fund	...	...	87·75
Ellore * (Ellúru, *Tel.*)	Municipality	12	12	10·48
Narsapore (Narasápuramu, *Tel.* Narsápur *) D	Local Fund	...	...	...
Peddapore (Peddápuramu, *Tel.* Peddápuram *) D	Do.	...	...	...
Pittapore (Pit'hápuramu, *Tel.* Pithápuram *) D	Do.	...	...	...
Rajahmundry * (Rájamahéndravaramu, *Tel.*)	Municipality	12	12	...
Ramchendrapooram (Rámachandrapuramu, *Tel.* Rámachandrapuramu *) D	Local Fund	...	...	...
Shivacode (Shivakódu, *Tel.*) D	Do.	...	...	...
Tallapoody (Tállapúdi,* *Tel.*) D	Do.	...	...	...
Toony (Tuni,* *Tel.*)D	Do.	...	...	...
Tanookoo (Tanuku,* *Tel.*) D	Do.	...	...	...
Yeleshwaram (Yeléshvaramu, *Tel.*) D	Do.	...	...	...

District and Hospital or Dispensary. The latter are distinguished by the letter D.	By whom supported.	Number of beds available.		Percentage of total cost paid by Government.
		Males.	Females.	
Kistna.				
Bezwada (Bedzaváda, *Tel.* Bezváda *)	Local Fund	12	6	6·64
Sullapully (Tsallapalle, *Tel.*) D	Do.	...	...	11·51
Chiraula (Chírála, *Tel.* Chirala *) D	Do.	...	...	5·60
Dauchepully (Dáchépalle, *Tel.* Dáchepalle *) D	Do.	...	...	1·21
Goodivauda (Gudiváda,* *Tel.*) D	Do.	...	...	11·57
Goontoor (Guntúru, *Tel.* Guntúr *)	Municipality	7	5	2·43
Juggayapett (Jaggayyapéta, *Tel.* Jaggayapet *)	Local Fund	6	...	12·76
Caurampoody (Kárempúdi, *Tel.*) D	Do.	...	...	13·73
Masulipatam * (Machilípatnamu, *Tel.*)	Municipality	14	10	3·52
Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet *) D	Local Fund	...	...	24·99
Noozveed (Nújivídu, *Tel.* Núzvíd *) D	Do.	...	...	9·45
Repally (Répalle,* *Tel.*) D	Do.	...	...	19·09
Sattenapully (Sattenapalle,* *Tel.*) D	Do.	...	...	6·58
Tiroovore (Tiruvúru, *Tel.*) D	Do.	...	...	15·98
Toomricode (Tumrikódu, *Tel.*) D	Do.	...	...	18·25
Vinoocondah (Vinukonda,* *Tel.*) D	Do.	...	...	25·00
Kurnool.				
Atmacore (Átmakúru, *Tel.*) D	Local Fund	...	...	...
Cumbum * (Kambhamu, *Tel.*)	Do.	12	6	...
Coilcoontla (Kóyilakuntla, *Tel.* Koilkuntla *) D	Do.	...	...	...
Kurnool * (Karnúlu, *Tel.*)	Municipality	22	12	5·31
Marcapore (Márkápuramu, *Tel.* Márkápur *) D	Local Fund	...	...	...
Nundiaul (Nandyála, *Tel.* Nandyál *)	Do.	6	4	...
Putticondah (Pattikonda,* *Tel.*) D	Do.	...	...	...
Sirwail (Chiruvella, *Tel.* Sirvel *) D	Do.	...	...	...
Madras.				
Black Town, North Side D	Municipality	...	...	...
Do. Medical Mission D	Mission	...	...	...
Eye Infirmary	Government	30	34	100
General Hospital	Do.	285	...	100
Leper Hospital	Do.	111	40	100
Lying-in Hospital and Female Dispensary at Egmore (Ezhumbúr, *Tam.*).	Do.	...	74	100
Native Infirmary	Municipality	63	48	18·85
Ramasawmy Lying-in Hospital	Private	Statistics are included in Native Infirmary.		
Triplicane (Tiruvallikkéni, *Tam.*)	Municipality	30	20	...
Women and Children Hospital, Madras	Government	...	102	100
Madura.				
Aroopoocottah (Aruppukkóttai, *Tam.* Aruppukóta *) D	Local Fund	...	...	...
Vattilagoondoo (Vattilakkundu, *Tam.*) D	Do.	...	...	...
Bodinaickanoor (Pódináyakkanúr, *Tam.* Bodináyakanúr *) D	Do.	...	...	...
Devacottah (Tévakkóttai, *Tam.* Devakóta *)	Do.	8	4	...
Dindigul * (Tindukkal, *Tam.*)	Municipality.	18	18	...
Camoothy (Kamuthi, *Tam.* Kamuti.*) D	Local Fund	...	...	...
Kodaykarnal (Kodikkánal, *Tam.* Kodaikánal *) D	Do.	...	...	...
Madura * (Mathurai, *Tam.*)	Municipality	25	25	...
Mauna Madura (Mánámathurai, *Tam.* Mána Madura *) D	Local Fund	...	...	...
Mailoor (Mélúr, *Tam.* Melúr *) D	Do.	...	...	...
Pulney (Pazhani, *Tam.* Palni *)	Do.	2	2	...
Paumben (Pámban,* *Tam.*)	Do.	8	4	28·81
Paramacoody (Paramakkudi, *Tam.* Paramakudi *)	Do.	3	3	...
Periyacoolam (Periyakkulam, *Tam.* Periyakulam *)	Do.	3	2	...
Rajasingamungalam (Rásasingamangalam, *Tam.*) D	Do.	...	...	...
Rameswaram (Rámésuvaram, *Tam.* Rámesvaram *)	Do.	6	6	...
Ramnaud (Rámanáthappuram, *Tam* Ramnad *)	Do.	16	12	16·64
Shivagunga (Shivakkangai, *Tam.* Sivagunga *)	Do	3	2	...
Tripatore (Tiruppattúr, *Tam.*) D	Do.	...	...	...
Tirooshooly (Tiruççuzhi, *Tam.* Tirushuli *)	Do.	3	3	...
Tiroomungalam (Tirumangalam,* *Tam.*) D	Do.	...	...	...
Tiroopoovanam (Tiruppúvanam, *Tam.* Tirupuvanam *) D	Do.	...	...	...
Oosilamputty (Usilambatti, *Tam.*)	Do.	1	1	...
Ootamapolliem (Uttamappálaiyam, *Tam.*)	Do.	1	1	...
Vedasundoor D (Védasandúr, *Tam.*)	Do.	...	...	...
Malabar.				
Badagara * (Vatakara, *Mal.*) D	Local Fund	...	...	10·82
Calicut * (Kozhikkóta, *Mal.*)	Municipality	28	16	0·26
Cannanore * (Kannúra, *Mal.*)	Do.	9	6	12·98

District and Hospital or Dispensary. The latter are distinguished by the letter D.	By whom supported.	Number of beds available.		Percentage of total cost paid by Government.
		Males.	Females.	
MALABAR—(*Continued*).				
Cochin * (Koççi, *Mal.*)	Municipality	25	14	13·92
Manantoddy * (Mánantóti, *Mal.*).	Local Fund	27	6	...
Munjery (Manchéri, *Mal.* Manjeri *)	Do.	38	12	...
Palghaut (Pálakkátu, *Mal.* Pálghat *)	Municipality	8	8	10·28
Paliport (Pallippuram, *Mal.* Lazaretto)	Government	24	24	100
Ponnany (Ponnáni, *Mal.* Ponáni *)	Local Fund	8	4	25·82
Tellicherry * (Talashsheri, *Mal.*)	Municipality	25	6	4·76
Vythery (Vaittiri, *Mal.* Vayitri *)	Local Fund	12	8	11·30
NELLORE.				
Addanky (Addanki,* *Tel.*) D	Local Fund	...	...	...
Atmacore (Átmakúru, *Tel.* Atmakúr *) D	Do.	...	...	...
Goodoor (Gúdúru, *Tel.* Gúdúr *) D	Do.	...	...	...
Cundoocore (Kandukúru, *Tel.* Kandukúr *) D	Do.	...	...	...
Canigherry (Kanigiri *) D	Do.	Information not furnished.		
Cauvaly (Kávali,* *Tel.*) D	Do.	...	...	...
Nellore * (Nellúru, *Tel.*)	Municipality	32	15	2·19
Do. Branch D	Do.	...	...	...
Oodayagherry (Udayagiri,* *Tel.*)	Local Fund	...	...	17·09
Ongole * (Vangólu, *Tel.*) D	Do.	8	8	11·93
Podily (Podile, *Tel.* Podili *)	Do.	Information not furnished.		
Raupore (Rápúru, *Tel.* Rápúr *) D	Do.	...	...	...
Sungam (Sangamu, *Tel.*)	P.W.D.	18	6	...
Vencatagherry (Venkatagiri,* *Tel.*) Town D	Local Fund	...	...	...
NEILGHERRY.				
Coonoor * (Kunnúr, *Tam.*)	Government	16	4	39·31
Devalah (Dévála, *Mal.* Devála *)	Private	16	6	36·93
Goodalore (Kúdalúr, *Tam.* Gúdalúr *)	Local Fund	18	5	41·11
Kotagherry (Kóttagiri, *Tam.* Kótagiri *)	Government	2	...	91·04
Ootacamund * (Ottagaimandu, *Tam.*)	Do.	36	21	57·52
SALEM.				
Ahtoor (Áttúr, *Tam.* Atúr *)	Local Fund	4	5	14·60
Dharmapoory (Tarumappuri, *Tam.* Dharmapuri *)	Do.	4	4	12·08
Haroor (Arúr, *Tam.*)	Do.	4	2	12·11
Oossoor (Hosúru, *Can.* Hosúr *)	Do.	4	4	12·69
Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *)	Do.	3	4	12·96
Namcull (Námakkal, *Tam.* Námakal *)	Do.	5	5	11·28
Salem * (Shélam, *Tam.*)	Municipality	12	11	1·58
Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug *)	Local Fund	6	6	13·25
Tripatore (Tiruppattúr, *Tam.* Tirupatúr *)	Do.	5	4	12·06
Ootancaray (Úttangarai, *Tam.* Úttankarai *) D	Do.	...	...	15·44
Vaniyambaudy (Vániyambádi,* *Tam.*) D	Do.	...	...	14·09
Yercaud * (Erkkád, *Tam.*)	Do.	4	3	9·05
TANJORE.				
Ammapett (Ammáppéttai, *Tam.* Ammápet *) D	Local Fund	...	...	...
Arantaungy (Arandángi, *Tam.* Arantángi *) D	Do.	...	...	12·52
Avadiyaurcoil (Ávadaiyárkkóvil, *Tam.*) D	Do.	...	...	...
Ayyampett (Ayyambéttai, *Tam.* Ayyampet *) D	Do.	...	...	...
Coottanalloor (Kúttánallúr, *Tam.*) D	Do.	...	...	...
Coodavausal (Kudavásal, *Tam.*) D	Do.	...	...	7·55
Carootattangoody and Manamboochauvady (Karuttattángudi, *Tam.* and Mánómbuççávadi, *Tam.*) D	Municipality	...	...	...
Combaconam (Kumbagónam, *Tam.* Kumbakónam *)	Do.	24	18	6·25
Do. Branch D	Do.	...	...	...
Mathoocoor (Mathukkúr, *Tam.*) D	Local Fund	...	...	...
Manamelgoody (Maramélkkudi, *Tam.*)	Do.	5	5	...
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *)	Municipality	16	20	9·31
Do. Branch D	Do.	...	...	
Mayavaram (Máyavaram,* *Tam.*)	Do.	4	4	9·12
Moottoopett (Muttuppéttai, *Tam.* Mutupet *) D	Local Fund	...	...	14·15
Nagore * (Nágúr, *Tam.*) D	Municipality	...	...	...
Nunnilam (Nannilam,* *Tam.*) D	Local Fund	...	...	16·59
Negapatam * (Nágappattanam, *Tam.*)	Municipality	20	12	11·87
Needamungalam (Nídámangalam,* *Tam.*)	Local Fund	4	2	11·80
Mimisal * (Mímbesal, *Tam.*)	Do.	3	3	...
Ortanaud (Orattanádu, *Tam.*) Chuttram	Do.	6	6	...
Paupanausam (Páppavinásam, *Tam.* Pápanásam *) D	Do.	...	...	...
Puttoocottah (Pattukkóttai *Tam.* Patukóta *)	Do.	4	4	10·62
Rajamadam (Rásamadam, *Tam.*)	Do.	4	4	...
Shiyally (Shiyyázhi, *Tam.* Shiyáli *)	Do.	6	2	19·95
Tanjore * (Tañjávúr, *Tam.*)	Private	60	60	29·93
Tiroocauttoopully (Tirukkáttuppalli, *Tam.*) D	Local Fund	...	...	...

District and Hospital or Dispensary. The latter are distinguished by the letter D.	By whom supported.	Number of beds available. Males.	Females.	Percentage of total cost paid by Government.
TANJORE—(*Continued*).				
Tritrapoondy (Tiruttaruppúndi, *Tam.* Tiruturaipundi *) ...	Local Fund	8	4	8·48
Tiroovadamaroothore (Tiruvidaimaruthúr, *Tam.* Tiruvadamarudúr *) D.	Do.	...	...	8·86
Trivaudy (Tiruváthi, *Tam.* Tiruvádi *) D	Do.	...	...	9·97
Tiroovalore (Tiruválúr,* *Tam.*) D	Do.	...	...	15·36
Tranquebar * (Tarangambádi, *Tam.*)	Do.	20	9	3·15
Do. Branch D	Do.	...	...	...
Vedaranyam (Vétháraniyam, *Tam.*) D	Do.	...	...	14·09
Valangimaun (Valangimán, *Tam.*) D	Do.	...	...	...
Vailangoolam (Véláugulam, *Tam.*)	Do.	4	2	...
Vullam (Vallam,* *Tam.*) D	Do.	...	...	...
TINNEVELLY.				
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *) D.	Local Fund	...	...	14·96
Yidayangoody (Idaiyangudi,* *Tam.*)	Do.	12	8	...
Megnaunapooram (Meyñánappuram, *Tam.* Megnánapuram *).	Do.	2	2	...
Nagalaupooram (Nágaláppuram, *Tam.* Nágalápuram *) ...	Mission	1	1	...
Nangoonairy (Nángúnéri, *Tam.* Nánguneri *)	Local Fund	3	3	15·41
Nazareth (Násarattu, *Tam.*)	Mission	10	10	...
Ottapidauram (Óttappidáram, *Tam.* Otapidáram *) D	Local Fund	...	...	16·09
Palamcottah * (Pálaiyangóttai, *Tam.*)	Municipality	20	13	0·44
Radhaupooram (Ráthappuram, *Tam.* Rádhápuram *) D ...	Local Fund	...	...	...
Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *) D	Do.	...	...	16·29
Shautore (Sháttúr, *Tam.* Sátúr *) D	Do.	...	...	11·72
Sawyerpooram (Sáyerppuram, *Tam.* Sawyerpuram *) ...	Mission	1	1	...
Shivacausy (Shivakkási, *Tam.* Sivakási *) D	Local Fund	...	...	...
Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur *) ...	Do.	3	3	14·78
Shreeveicoontam (Shirívaikkundam, *Tam.* Srívaikuntham *) D.	Do.	...	...	11·60
Tencausy (Tengási, *Tam.* Tenkási *)	Do.	...	...	4·99
Tiroocooroongoody (Tirukkurungudi, *Tam.*) D	Do.	...	...	...
Tinnevelly * (Tirunelvéli, *Tam.*)	Municipality	7	5	...
Tuticorin * (Túttukkudi, *Tam.*)	Do.	21	14	17·56
Viroothooputty (Viruthuppatti, *Tam.* Virudupati *)	Local Fund	6	6	9·27
TRICHINOPOLY.				
Ariyaloor (Ariyalúr,* *Tam.*) D	Local Fund	...	...	...
Iroongalore (Irungalúr,* *Tam.*) D	Mission	...	...	...
Moosiry (Musiri,* *Tam.*) D	Local Fund	...	...	...
Shreerungam (Shirírangam, *Tam.* Srírangam *)	Municipality	14	12	...
Trichinopoly * (Tiruççináppalli, *Tam.*)	Do.	44	24	10·55
VIZAGAPATAM.				
Ankapully (Anakápalle,* *Tel.*)	Municipality	8	...	13·81
Bimlipatam * (Bhímunipatnamu, *Tel.*)	Do.	16	6	25·30
Bobbily (Bobbili,* *Tel.*)	Local Fund	3	3	17·38
Cheepoorpully (Chípurupalle,* *Tel.*)	Do.	8	...	22·51
Chodavaram (Chódavaramu, *Tel.* Chódavaram *)	Do.	4	2	21·06
Gujapatinugger (Gajapatinagaramu, *Tel.* Gajapatinagar *) D...	Do.	...	...	19·23
Goonapore (Gunupuramu, *Tel.*) D...	Government	...	...	100
Iticavulsa (Itikavalasa, *Tel.*)	Do.	...	...	100
Narsapatam (Narasapatnamu, *Tel.* Narsapatnam*)	Local Fund	15	6	12·31
Palcondah (Pálakonda, *Tel.* Pálkonda *)	Do.	4	4	8·75
Parvatipore (Párvatípuramu, *Tel.* Párvatipur *)	Do.	6	...	...
Saulore (Sálúru, *Tel.* Sálúr *)	Do.	4	...	3·51
Srungavarapoocote (Shringavarapukóta, *Tel.*)	Do.	5	5	22·84
Vizagapatam * (Vishákhapatnamu, *Tel.*)...	Municipality	20	10	...
Waltair * (Váltéru, *Tel.*)	Do.	Statistics are included in the return of Vizagapatam.		
Yellamanchily (Yellamanchili, *Tel.*)	Local Fund	6	3	...
	Grand Total ...	2,037	1,339	35·40

APPENDIX No. LXXII.

STATEMENT SHOWING THE PUBLIC WORKS CIRCLES AND DIVISIONS IN THE PRESIDENCY.

Circles.	Head-quarters of circles.	Divisions.	Head-quarters of divisions.	Areas of divisions in square miles.	Areas of circles in square miles.	Districts in which situated.
		1. Ganjam	Berhampore ...	5,674		Ganjam.
		2. Rooshcoolya (temporary).	Do. ...			Do.
No. I ...	Dowlaishweram.	3. Vizagapatam ..	Waltair	5,016¼	18,226	Vizagapatam.
		4. Godavery, Eastern.	Dowlaishweram...			Godavery.
		5. Do. Central (temporary).	Gunnavaram ...	7,535¾		Do.
		6. Godavery, Western	Chittapett ...			Do.
		7. Kistna, Eastern ...	Bezwada			Kistna.
		8. Goodivauda (temporary).	Goodivauda ...	8,387½		Do.
No. II ...	Masulipatam (Bezwada).	9. Kistna, Western...	Dooggiraula ...		16,469¾	Do.
		10. Nellore ...	Nellore	8,082¼		Nellore.
		11. Sungam Project...	Sungam			Do.
		12. BuckinghamCanal.	Nellore	...		......
		13. Bellary	Bellary	11,051		Bellary.
		14. (C) Project ...	Do.			Do.
No. III ...	Bellary ...	15. Cuddapah	Cuddapah ...	8,304	26,358½	Cuddapah.
		16. Kurnool	Kurnool	7,003½		Kurnool.
		17. Kurnool Canal ...	Do.			Do.
		18. Neilgherry ...	Ootacamund ...	1,705		Neilgherry.
		19. West Coast ...	Calicut	8,497		Malabar and Canara.
No. IV ...	Coimbatore ...	20. Coimbatore ...	Coimbatore ...		25,117	Coimbatore and Salem.
		21. (B) Project ...	Do. ...	14,915		Do.
		22. Baroor Project ...	Baroor			Salem.
		23. North Arcot ...	Vellore	7,029½		North Arcot.
		24. South Arcot ...	Cuddalore... ...	4,943¾		South Arcot.
		25. Chingleput ...	St.Thomas' Mount	3,139½		Chingleput.
No. V ...	Madras ...	26. Presidency and Bangalore.	Bangalore	38	15,150¾	Madras and Bangalore.
		27. Presidency Workshops.	Madras	...		Madras.
		28. Trichinopoly ...	Trichinopoly ...	4,599¼		Trichinopoly.
		29. Tanjore	Tanjore	1,667½		Tanjore.
No. VI ...	Trichinopoly...	30. Cauvery and Vennaur Regulators (temporary).	Grand Anicut, Tanjore.	...	20,455¼	Do.
		31. Negapatam ...	Negapatam ...	1,825		Do.
		32. Madura	Madura ...	8,419½		Madura.
		33. Tinnevelly ...	Palamcottah ...	3,944		Tinnevelly.
	Madras ...	34. Consulting Architect.	Chepauk	...	...	Madras.
Supt. of Works, Tank Maintenance Scheme.	Do. ...	35. No. 1 Tank (temporary).	Madura	...	...	At present in Madura.
		36. No. 2 Tank (temporary).	St. Thomas' Mount	...	...	At present in Chingleput.
Chief Engineer for Irrigation.	Do. ...	37. Lower Coleroon Project (temporary).	Cuddalore	...	...	South Arcot.
				Total Area ...	121,777¼	square miles.

APPENDIX No. LXXIII.

STATEMENT OF TOTAL EXPENDITURE IN THE PUBLIC WORKS DEPARTMENT FROM 1870-71 TO 1882-83.

Class of works.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Imperial.													
Irrigation and Navigation—													
Original works	8,00,020	8,02,174	8,78,509	8,13,587	8,10,394	10,96,114	6,17,969	4,96,474	8,15,358	4,43,746	5,69,240	7,16,428	(a)1,87,53,191
Repairs	11,44,826	11,22,500	12,61,303	14,00,194	15,43,707	15,22,742	14,56,378	15,44,063	12,09,127	11,35,630	11,91,402	12,20,224	16,25,069
Establishment	1,34,877	1,97,131	6,36,032	6,34,694	8,28,231	8,51,904	7,64,072	14,92,321	8,91,143	7,44,598	6,24,172	6,61,764	10,18,218
Tools and plant	15,202	6,532	2,30,625	44,216	83,216	1,35,352	1,46,980	1,71,353	92,279	1,26,077	1,83,662	1,30,222	1,61,046
Total ...	20,94,925	21,28,337	29,79,469	28,92,691	32,65,548	36,06,112	29,85,399	37,04,211	30,07,907	24,50,051	25,68,476	27,28,638	2,15,57,524
Military—													
Original works	3,32,353	2,10,667	2,84,121	2,69,461	3,28,534	3,87,165	2,90,575	3,05,898	2,17,110	21,227	1,39,576	1,15,574	2,48,365
Repairs	2,23,005	2,23,485	2,43,069	2,59,703	2,32,218	2,60,593	2,32,256	2,40,403	2,00,779	1,90,125	2,77,447	2,69,097	2,92,955
Establishment	...	...	1,39,730	1,19,082	1,46,350	1,63,465	1,62,822	1,53,120	1,69,998	1,58,709	99,255	96,161	1,11,767
Tools and plant	...	...	20,888	15,097	28,078	23,605	25,367	15,176	15,731	16,023	9,925	9,603	7,221
Total ...	5,55,358	4,34,152	6,87,808	6,63,343	7,35,180	8,34,828	7,11,020	7,14,597	6,03,618	3,86,084	5,26,203	4,90,435	6,60,308
Other Services--													
Original works	11,83,000	32,310	47,760	21,046	28,634	17,602	29,753	27,011	23,237	34,145	1,19,131	1,92,582	2,01,206
Repairs	10,39,410	2,855	3,396	3,996	4,715	8,836	2,573	8,985	12,900	4,865	3,313	5,672	5,099
Establishment	14,75,473	5,89,994	13,556	5,914	16,158	22,954	20,202	16,134	45,062	38,557	28,362	64,311	45,378
Tools and plant	1,47,772	61,759	2,026	714	2,766	843	3,389	1,718	1,335	2,957	3,040	6,627	3,028
Total ...	(b)38,45,655	6,86,918	66,738	31,670	52,273	50,235	55,917	53,848	82,534	80,524	1,53,846	2,69,192	2,54,711
Provincial.													
Irrigation and Navigation--													
Original works	...	...	...	...	...	...	...	...	...	1,50,167	1,17,839	1,05,463	1,49,604
Repairs	...	...	...	...	...	...	...	...	...	64,741	1,22,929	81,503	1,24,321
Establishment	...	...	...	...	...	...	...	...	...	42,777	60,192	51,405	73,739
Tools and plant	...	...	...	...	...	...	...	...	...	4,016	6,019	10,675	5,194
Total ...	...	...	...	...	...	...	...	...	...	2,16,701	3,06,979	2,49,046	3,52,858

(a) Of this Rupees 1,76,25,050 represents the purchase value of the Kurnool canal.

(b) Includes works that are now classed as "Provincial."

STATEMENT OF TOTAL EXPENDITURE IN THE PUBLIC WORKS DEPARTMENT FROM 1870-71 TO 1882-83—(*Continued*).

Class of works.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Provincial—(Continued).													
Roads and Buildings—													
Original works	...	5,18,112	7,20,790	9,65,324	7,71,727	10,99,324	9,02,042	36,55,789	10,25,412	4,01,815	8,01,266	4,74,295	11,32,525
Repairs	...	1,42,107	1,66,998	1,94,853	2,05,135	4,27,878	3,79,673	6,63,833	5,67,444	1,76,371	1,30,427	1,47,922	1,86,659
Establishment	...	1,81,191	2,26,696	2,51,577	2,05,070	5,28,609	5,39,598	12,79,506	11,27,000	6,35,690	5,50,554	7,05,784	5,23,909
Tools and plant	...	47,147	70,637	4,973	55,508	77,492	1,27,605	3,15,376	35,782	2,64,868	18,837	31,802	69,491
Total ...	...	8,88,557	11,85,121	14,16,727	12,37,440	21,33,303	19,48,918	59,14,504	27,55 638	9,49,008	14,63,410	12,96,199	17,73,602
Local.													
Original works	12,93,759	14,30,382	13,11,052	18,54,008	16,24,916	10,13,553	14,07,713	9,50,437	5,24,971	3,99,686	1,14,750	92,362	68,500
Repairs	7,21,577	17,35,585	19,74,507	20,76,338	21,32,060	19,58,922	18,22,059	12,41,109	15,93,195	17,52,196	1,54,015	1,60,318	38,455
Establishment	2,99,369	9,60,923	9,87,477	10,32,031	8,80,905	5,71,503	7,43,559	3,96,071	5,73,341	4,69,131	62,689	31,932	43,182
Tools and plant	13,467	31,254	37,923	54,463	28,050	37,106	36,198	88,777	55,543	44,884	6,141	4,413	2,623
Total ...	23,28,172	41,58,144	43,10,959	50,16,840	46,65,931	35,81,084	40,09,529	26,76,394	27,47,050	26,65,897	3,37,595	2,89,025	1,52,760
Grand Total—													
Original works	36,09,132	29,93,645	32,42,232	39,23,426	35,64,205	36,13,758	32,48,052	(*a*) 54,35,609	26,06,088	14,05,786	18,61,802	16,96,704	(*b*) 205,53,391
Repairs	31,28,818	32,26,532	36,49,273	39,35,084	41,17,835	41,78,971	38,92,939	(*c*) 36,98,393	35,83,445	33,23,928	18,79,533	18,84,736	22,72,558
Establishment	19,09,719	19,29,239	20,03,491	20,43,298	20,76,714	21,38,435	22,30,253	(*d*) 33,37,152	28,06,544	20,89,462	14,25,224	16,11,357	18,16,193
Tools and plant	1,76,441	1,46,692	3,35,099	1,19,463	1,97,618	2,74,398	3,39,539	5,92,400	2,00,670	70,911	1,89,950	1,29,738	1,09,621
Total ...	88,24,110	82,96,108	92,30,095	100,21,271	99,56,372	102,05,562	97,10,783	130,63,554	91,96,747	67,48,265	53,56,509	53,22,535	247,51,763
Madras Harbour Works—													
Works	...	...	...	...	...	76,809	5,74,998	3,95,196	7,78,030	11,66,211	13,84,164	6,63,858	4,12,823
Establishment	...	...	...	...	...	25,814	64,901	48,080	53,021	50,295	68,632	71,083	56,243
Tools and plant	...	...	...	...	...	24,212	3,66,799	1,01,892	4,770	4,275	8,779	54,817	2,334
Total ...	...	...	...	...	...	1,26,835	10,06,698	5,45,168	8,35,821	12,20,781	14,61,575	7,89,758	4,71,400

(*a*) This was a famine year and the total outlay shown is inclusive of Rupees 44,46,594, being the normal value charged on account of famine.
(*b*) Of this Rupees 1,76,25,050 represents the purchase value of the Kurnool canal.
(*c*) Includes works that are now classed as "Provincial."
(*d*) The excess under this head is attributable to the cost of the extra establishment employed on Famine Relief works.

APPENDIX No. LXXIV.

LIST OF ECCLESIASTICAL AND MISSIONARY STATIONS.

(1) STATIONS FOR CHAPLAINS.

Aurungabad	1	Cuddalore	1	Rajahmundry and Cocanada ...	1
Bangalore, St. Mark's	1	Domestic Chaplain	1	Secunderabad	1
Do. Trinity	1	Madras, Cathedral	2	St. Thomas' Mount and Pallavaram	1
Do. St. John's	1	Do. Fort St. George	1	Trichinopoly	1
Bellary	1	Do. North Black Town ...	1	Trivandrum	1
Berhampore and Chetterpore ...	1	Do. South Black Town ...	1	Trimulgherry	1
Bolarum	1	Do. Vepery	2	Vellore and Arcot	1
Calicut	1	Mercara	1	Vizianagram	1
Cannanore	1	Mysore	1	Wellington	1
Coimbatore	1	Ootacamund	1		
Coonoor	1	Poonamallee	1		

(2) ADDITIONAL CLERGY, STATIONS AND INCUMBENTS.

Amravatty	And other stations in Berar.
Bangalore	Retired S.P.G.
Do.	Warden of the Bishop Cotton Schools and College; Incumbent of the Fort and of All Saints.
Chudderghaut	Incumbent.
Cochin	Colonial and Continental Church Society.
Kurnool	Incumbent.
Madras	Bible Society.
Do.	Head Master of Bishop Corrie's Grammar School, and Incumbent of Church Mission Chapel.
Do.	Incumbent of Christ Church, and Secretary to the Colonial and Continental Church Society.
Madras	Retired S.P.G.
Do.	Do.
Madura	Additional Clergy Fund.
Negapatam	Do.
Ootacamund, Lovedale.	Principal of the Lawrence Asylum.
Perambore	Retired S.P.G., Incumbent.
Pothanore	Madras Railway Chaplain, S.W.
Poonamallee	Retired S.P.G.
Ryechore	Madras Railway Chaplain, N.W.
Tanjore	Retired S.P.G.
Tuticorin	S.P.G.
Tranquebar	Retired S.P.G.
Wynaud	Additional Clergy Fund.
Yercaud	Incumbent.

(3) STATIONS SERVED OR APPOINTMENTS HELD BY PROTESTANT MISSIONARIES.

LIST I.—SOCIETY FOR THE PROPAGATION OF THE GOSPEL.

Madras and Isolated Stations.

Secretary, and in charge of the S.P.G., Madras, and Isolated Missions, Madras.
Incumbent of St. Thomé, Madras.
Principal of the S.P.G. Theological College, Sullivan's Gardens, Madras.
(*The following are Native Clergy.*)
St. Thomé, Madras.
St. John's, Vepery, Madras.
St. Paul's, Vepery, Madras.
Bangalore.
Secunderabad.
Cuddalore.

Tinnevelly and Ramnaud.

Poothiampoottoor, (Puthiyambuttúr, *Tam.*), near Ottapidauram.
Nazareth, Tinnevelly District.
Principal, Caldwell College, Tuticorin.
(*The following are Native Clergy.*)
Tuticorin * (Túttukkudi, *Tam.*), Tinnevelly District.
Yidayangoody (Idaiyangudi,* *Tam.*), Tinnevelly District.
Taroovay (Taruvai, *Tam.*), near Yidayangoody.
Pettaycoolam (Pettaikkulam, *Tam.*), near Yidayangoody.
Radhaupooram (Ráthíppuram, *Tam.* Rádhápuram *), near Yidayangoody.
Moothaloor (Muthalúr, *Tam.*), near Shatauncoolam.
Christianagram.
Nazareth, Tinnevelly District.
Cadayanoday (Kadaiyanódai, *Tam.*), near Nazareth.
Moocpooricoodyiroopoo (Múkkuppúrikkudiyiruppu, *Tam.*), near Nazareth.
Oodayarcoolam (Udaiyárkkulam, *Tam.*), near Nazareth.
Sawyerpooram (Sáyerppuram, *Tam.* Sawyerpuram *), Tinnevelly District.
Moothaloor (Muthalúr, *Tam.*), Tinnevelly District.
Ramnaud (Rámanáthappuram, *Tam.* Ramnad *), Madura District.
Puttoocottah (Pattukkóttai, *Tam.*), near Sawyerpooram.
Mailseytalay (Mélaççeyttalai, *Tam.*), near Ottapidauram.
Oodayaputtipoothoor, (Udaiyáppattipputhúr, *Tam.*), near Ottapidauram.
Eeral (Íral, *Tam.*), near Ottapidauram.
Coolatore (Kulattúr, *Tam.*), near Vilauticoolam.
Nagalaupooram (Nágaláppuram, *Tam.* Nágalápuram *), near Vilauticoolam.
Attangaray (Áttangarai, *Tam.*), near Vilauticoolam.
Ramnaud (Rámanáthappuram, *Tam.* Ramnad *), Madura District.
Paramacoody (Paramakkudi, *Tam.* Paramakudi *), Madura District.
Deviputnam (Tévippattanam, *Tam.*), Madura District.
Paumben (Pámban,* *Tam.*), Madura District.
Keelakaray (Kízhakkarai, *Tam.* Kílakarai *), Madura District.

Tanjore, South Arcot, and Trichinopoly.

Tanjore * (Tañjávúr, *Tam.*).
Trichinopoly * (Tiruççináppalli, *Tam.*).
(*The following are Native Clergy.*)
Nangoor (Nángúr, *Tam.*), near Shiyally.
Tanjore * (Tañjávúr, *Tam.*).
Vethiarpooram (Véthiyarppuram, *Tam.*), near Tanjore.
Iroongalore (Irungalúr,* *Tam.*), near Trichinopoly.
Trichinopoly * (Tiruççináppalli, *Tam.*).
Ariyaloor (Ariyalúr,* *Tam.*), Trichinopoly District.
Salem * (Shélam, *Tam.*).

Cuddapah.

Moottiaulpaud (Mutyálapádu, *Tel.*), near Chagulmurry viâ Proddootore.
Calsapaud (Kalasapádu, *Tel.*), near Budwail.
Nundiaul (Nandyála, *Tel.* Nandyál *), Kurnool.

List II.—Church Missionary Society.

Madras and Isolated Stations.

Secretary, Madras.
Hindostany Mission, Madras.
Cochin.
Madura.
Aurungabad, Hyderabad.
Calicut.
(*Native Clergy.*)
Southern Pastorate, Madras.
Northern Pastorate, Madras.
Educated Hindoos, Madras.
Ootacamund.

Tinnevelly.

Training Institution, Palamcottah.
Sarah Tucker Institution, Palamcottah.
C.M.S. College, Palamcottah.
(*The following are Native Clergy.*)
Palamcottah * (Pálaiyangóttai, *Tam.*).
Domestic Chaplain to Bp. Sargent, Palamcottah.
Maroothacoolam (Maruthagulam, *Tam.*), near Nangoonairy.
Parvatipore (Párvathippuram, *Tam.*), near Manore.
Manacaud (Manakkádu, *Tam.*), near Palamcottah.
Nanjacoolam (Náñjákkulam, *Tam.*), near Manore.
Alwanairy (Ázhvánéri, *Tam.*), Tinnevelly.
Codancoolam (Kódangulam, *Tam.*), near Nangoonairy.
Tinnevelly * (Tirunelvéli, *Tam.*).
Superintending Pastor, Megnaunapooram, (Meyñánappuram, *Tam.* Megnánapuram *).
Aseervauthapooram (Ásirváthappuram, *Tam.*), near Shatauncoolam.
Megnaunapooram (Meyñánappuram, *Tam.* Megnánapuram *).
Vellaulanvilay (Vellálanvilai, *Tam.*), near Megnaunapooram.
Dharmanagaram (Tarumanagaram, *Tam.*), near Megnaunapooram.
Armooganairy (Árumuganéri, *Tam.*), near Cauyalputnam.
Shatauncoolam (Sháttángulam, *Tam.* Sátánkulam *).
Shatyanagram (Shattiyanagaram, *Tam.*), near Shatauncoolam.
Anantapooram (Anandappuram, *Tam.*), near Shatauncoolam.
Ambinagaram (*Tam.*), near Megnaunapooram.
Trivarungaputty (Tiruvarangappatti, *Tam.*), near Shatauncoolam.
Pootchicaud (Púççikkádu, *Tam.*), near Megnaunapooram.
Pracausapooram (Pirагásappuram, *Tam.*), near Nazareth.
Catautchapooram (Kadádchappuram, *Tam.*), near Megnaunapooram.
Anoocragapooram (Anukkiragappuram, *Tam.*), near Shatauncoolam.
Nedooncoolam (Nedungulam, *Tam.*), near Shatauncoolam.
Medical Pastor, Megnaunapooram, (Meyñánappuram, *Tam.* Megnánapuram *).
Cooppapooram (Kuppappuram, *Tam.*), near Megnaunapooram.
Poothoocoolam (Puthukkulam, *Tam.*), near Shatauncoolam.
Nalmauvady (Nálumávadi, *Tam.*), near Megnaunapooram.
Trivarunganairy (Tiruvaranganéri, *Tam.*), near Megnaunapooram.
Nallammaulpooram (Nallammálppuram, *Tam.*), near Yidayangoody.
Sooviseshapooram (Shuvisésappuram, *Tam.*).
Meenautchinauthapooram (Mínáççináthappuram, *Tam.*), near Sooviseshapooram.
Zion Hill, near Vulliyoor.
Nalloor (Nallúr, *Tam.*).
Yidayancoolam (Idaiyangulam, *Tam.*), near Calacaud.
Chinnammaulpooram (Shinnammálppuram, *Tam.*), near Vulliyoor.
Perpilancoolam (Pérppilángulam, *Tam.*), near Panagoody.
Dohnavoor (Tónávúr, *Tam.*), near Tiroocooroongoody.
Panneivilay (Pannaivilai, *Tam.*), near Sawyerpooram.
Munnariantatt (Mannáraiyandattu, *Tam.*), near Sawyerpooram.
Congaroyacoorchy (Kongaráyakkuriççi, *Tam.*), near Shreeveicoontam.
Keilasapooram (Kailásappuram, *Tam.*), near Ottapidauram.
Pannicoolam (Pannikkulam, *Tam.*), near Cayataur.
Atchamputty (Açççambatti, *Tam.*), near Cayataur.
Toorayore (Turaiyúr, *Tam.*), near Yettiyapooram.
Calattikinar (Kallattikkinaru, *Tam.*), near Paneivadaly.
Coviloot (Kóvilúttu, *Tam.*), near Cadayam.
Sheevalasamoodram (Shívalasamuttiram, *Tam.*), near Alancoolam.
Poolavanoor (Pulavanúr, *Tam.*), near Cadayam.
Nalloor (Nallúr, *Tam.*), near Alancoolam.
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).
Ookkirancottah (Ukkirangóttai, *Tam.*), near Manore.
Pooliancoody (Puliyangudi, *Tam.*), near Vasoodevanallore.
Shooranday (Shurandai, *Tam.*).
Shantapooram (Shandappuram, *Tam.*), near Tencausy.
Vaugaycoolam (Vágaikkulam, *Tam.*), near Shunkaraneinarcoil.
Shreevillipoottore (Shirívilliputtúr, *Tam.* Srívilliputur *).
Panayadiputty (Panaiyadippatti, *Tam.*), near Yelayirampunnay.
Viroothooputty (Viruthuppatti, *Tam.* Virudupati *).
Lingamputty (Lingambatti, *Tam.*).
Shunkaraneinarcoil (Shangaranayinárkkóvil, *Tam.* Sankaranainárkoil *).
Pottalputty (Pottalppatti, *Tam.*), near Rajahpolliem.

Kistna and Godavery.

Noble College, Masulipatam * (Machilípatnamu, *Tel.*).
Training Institution, Masulipatam * (Machilípatnamu, *Tel.*).
Ellore * (Ellúru, *Tel.*).
Bezwada (Bedzaváda, *Tel.* Bezváda *).
Doomagoodem (Dummagúdemu, *Tel.*), Upper Godavery.
Raghavapooram (Rághavapuramu, *Tel.*), near Nundigauma, Kistna.
(*The following are Native Clergy.*)
Masulipatam * (Machilípatnamu, *Tel.*).
High School, Ellore.
Polsaunapully (Pólasánapalli, *Tel.*).
Doomagoodem (Dummagúdemu, *Tel.*), Upper Godavery.
Peddapaud (Peddapádu, *Tel.*).
Raghavapooram (Rághavapuramu, *Tel.*).
Teloorpaud (Telurupádu, *Tel.*).

List III.—Free Church of Scotland Mission.

Madras.*
Nellore * (Nellúru, *Tel.*).
Trivellore (Tiruvallúr,* *Tam.*), Chingleput District.
Conjeeveram * (Káñjípuram, *Tam.*), Chingleput District.
Wallajahbad (Válájábád, *Hind.* Wálajábád *), Chingleput District.
Chingleput * (Shengalppattu, *Tam.*), Chingleput District.
Shingapermaulcoil (Shingapperumálgóvil, *Tam.* Singaperumálkoil *), Chingleput District.

List IV.—Hermannsburg Evangelical Lutheran Mission.

Naidoopett (Náyudupéta, *Tel.* Náyudupet *).
Sooloorpett (Súlúrupéta, *Tel.*).
Goodoor (Gúdúru, *Tel.* Gúdúr *).
Shreeharicote (Shríharikóta, *Tel.* Sríharikót *) (no missionary own at present).
Vencatagherry (Venkatagiri,* *Tel.*).
Vaucaud (Vákádu, *Tel.*).
Raupore (Rápúru, *Tel.* Rápúr *).
Calastry (Kálahasti,* *Tel.*).
Tripatty (Tiruppathi, *Tam.* Tirupati *).
Codoor (Kódúru, *Tel.* Kódúr*).
Puttoor (Pattúr, *Tam.* Patúr *).

List V.—American Madura Mission.

Madura * (Mathurai, *Tam.*), Madura District.
Mauna Madura (Mánámathurai, *Tam.* Mána Madura *), Madura District.
Dindigul * (Tindukkal, *Tam.*), Madura District.
Vattilagoondoo (Vattilakkundu, *Tam.*), Madura District.
Mailoor (Mélúr, *Tam.* Melúr *), Madura District.
Periyacoolam (Periyakkulam, *Tam.* Periyakulam *), Madura District.
Tiroopoovanam (Tiruppúvanam, *Tam.* Tirupuvanam *) Madura District.
Tiroomungalam (Tirumangalam,* *Tam.*), Madura District.
Pulney (Pazhani, *Tam.* Palni *), Madura District.
Pasoomullay (Pasumalai, *Tam.*), Madura District.
Mantapashaulay (Mandabasálai, *Tam.*), Madura District.

List VI.—Basel Evangelical Mission.

Mangalore * (Mangalúru, *Can.*), South Canara District.
Moolky (Múlki, *Can.*), South Canara District.
Oodipy (Udipi,* *Can.*), South Canara District.
Caurcal (Kárkala, *Can.*), South Canara District.
Basroor (Basarúru, *Can.*), Coondapore (Kundápura, *Can.* Coondapoor *), South Canara District.
Cannanore * (Kannúra, *Mal.*) Malabar District.
Tellicherry * (Talashsheri, *Mal.*), Malabar District.
Chombaula (Chómpála, *Mal.*), Mahé.
Calicut * (Kozhikkóta, *Mal.*), Malabar District.
Codacal (Kotakkal, *Mal.*), near Tiroor.
Palghaut (Pálakkátu, *Mal.* Pálghat *), Malabar District.
Mercara * (Madhukeri, *Can.*), Coorg.
Anandapoora, near Ammatty.
Kaity (Kéti, *Can.*), near Ootacamund.
Kotagherry (Kóttagiri, *Tam.* Kótagiri *), Neilgherry District.

List VII.—London Missionary Society.

Madras.*
Tripatore (Tiruppattúr, *Tam.* Tirupatúr*), Salem District.
Salem * (Shélam, *Tam.*), Salem District.
Coimbatore * (Kóyamuttúr, *Tam.*), Coimbatore District.
Bangalore * (Bengalúru, *Can.*), Mysore.
Bellary * (Ballári, *Tel.*), Bellary District.
Cuddapah * (Kadapa, *Tel.*), Cuddapah District.
Gooty * (Gutti, *Tel.*), Anantapore District.
Vizagapatam * (Vishákhapatnamu, *Tel.*), Vizagapatam District.
Vizianagram * (Vijayanagaramu, *Tel.*), Vizagapatam District.
Nagarcoil (Nágarakkovil, *Mal*), Travancore.
Tittooviley (Tittuville, *Mal.*), Travancore.
Neyyoor (Neyyur, *Mal.*), Travancore.
Parechaley (Pareççale, *Mal.*), Travancore.
Trivandrum * (Tiruvanantapuram, *Mal.*), Travancore.
Quilon * (Kollam, *Mal.*), Travancore.

List VIII.—Evangelical Lutheran Mission of Leipzig.

Tranquebar * (Tarangambádi, *Tam.*), Tanjore District.
Porayaur (Poraiyár, *Tam.*), Tanjore District.
Manigraumam (Manikkirámam, *Tam.*), near Mayavaram.
Mayavaram (Máyavaram,* *Tam.*), Tanjore District.
Shiyally (Shiyyázhi, *Tam.* Shiyáli *), Tanjore District.
Manamode (Manamédu, *Tam.*), near Mayavaram.
Combaconam (Kumbagónam, *Tam.* Kumbakónam *), Tanjore District.
Negapatam * (Nágappattanam, *Tam.*), Tanjore District.
Tanjore * (Tañjávúr, *Tam.*), Tanjore District.
Aneicaud (Ánaikkádu, *Tam.*), near Puttoocottah.
Trichinopoly * (Tiruççináppalli, *Tam.*), Trichinopoly District.
Motooputty (Méttuppatti, *Tam.*), near Laulgoody.
Poodoocottah (Puthukkóttai, *Tam.*), Trichinopoly District.
Coimbatore * (Kóyamuttúr, *Tam.*), Coimbatore District.
Madras * (Shennappattanam, *Tam.*), Madras District.
Cuddalore * (Kúdalúr, *Tam.*), South Arcot District.
Chidambaram * (Shithambaram, *Tam.*), South Arcot District.
Madura * (Mathurai, *Tam.*), Madura District.
Peraiyoor (Péraiyúr, *Tam.* Peraiyúr *), Madura District.

List IX.—Canadian Baptist Teloogoo Mission.

Cocanada * (Kákináda, *Tel.*), Godavery District.
Bimlipatam * (Bhímunipatnamu, *Tel.*), Vizagapatam District.
Chicacole * (Shríkákulamu, *Tel.*), Ganjam District.
Toony (Tuni,* *Tel.*), Godavery District.
Bobbily (Bobbili,* *Tel.*), Vizagapatam District.
Akeed (Ákuvídu, *Tel.*), Godavery District.

List X.—Wesleyan Mission.

Madras, Royapettah (Ráyappéttai, *Tam.*)
Do. Black Town.
St. Thomas' Mount * (Parangimalai, *Tam.*), Chingleput District.
Poonamallee * (Púvirundamalli, *Tam.*), Chingleput District.
Pallavaram (Pallávaram,* *Tam.*) Chingleput District.
Teiyoor (Taiyyúr, *Tam.*), near Covelong.
Trivellore (Tiruvallúr,* *Tam.*), Chingleput District.
Eecaud (Íkkádu, *Tam.*), near Trivellore.
Madrantacam (Mathurándagam, *Tam.* Madurántakam *), Chingleput District.
Tatchoor (Taççúr, *Tam.*), near Madrantacam.
Negapatam * (Nágappattanam, *Tam.*), Tanjore District.
Nagore * (Nágúr, *Tam.*), Tanjore District.
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *), Tanjore District.
Tritrapoondy (Tiruttaruppúnd i, *Tam.* Tiruturaipúndi *) Tanjore District.
Needamungalam (Nídámangalam,* *Tam.*), Tanjore District.
Mailnuttam (Mélanattam, *Tam.*), near Munnargoody, Tanjore.
Tiroovalore (Tiruválúr,* *Tam.*), Tanjore District.
Coodavausal (Kudavásal, *Tam.*), Tanjore District.
Nunnilam (Nannilam, * *Tam.*), Tanjore District.
Trichinopoly * (Tiruççináppalli, *Tam.*), Trichinopoly District.
Caroor (Karúr,* *Tam.*), Coimbatore District.
Ooppidamungalam (Uppidamangalam, *Tam.*), Coimbatore District.
Aravacoorchy (Aravakkuriççi, *Tam.* Aravakurchi *), Coimbatore District.
Dharaupooram (Tárápuram, *Tam.* Dhárápuram *), Coimbatore District.

List XI.—American Baptist Teloogoo Mission.

Madras.*
Nellore * (Nellúru, *Tel.*), Nellore District.
Oodayagherry (Udayagiri,* *Tel.*) Nellore District.
Ramapatam (Rámayyapatnamu, *Tel.*), Nellore District.
Ongole * (Vangólu, *Tel.*), Nellore District.
Baupatla (Bápatla, * *Tel.*), Kistna District.
Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet*), Kistna District.
Vinoocondah (Vinukonda,* *Tel.*), Kistna District.
Cumbum * (Kambhamu, *Tel.*), Kurnool District.
Kurnool * (Karnúlu, *Tel.*), Kurnool District.

List XII.—American Evangelical Lutheran Mission.

Goontoor (Guntúru, *Tel.* Guntúr *), Kistna District.
Repully (Répalle,* *Tel.*), Kistna District.
Baupatla (Bápatla,* *Tel.*), Kistna District.
Narsarowpett (Narasarávupéta, *Tel.* Narsaraopet *), Kistna District.
Sattenapully (Sattenapalle,* *Tel.*), Kistna District.
Pulnaud (Pálnádu, *Tel.* Palnád *), near Dauchepully.
Veldoorty (Veludurti, *Tel.* Veldurti *), Kistna District.
Vinoocondah (Vinukonda,* *Tel.*), Kistna District.

List XIII.—Arcot Mission of the Reformed Church of America.

Arcot * (Árkkádu, *Tam.*), North Arcot District.
Arnee (Árani, *Tam.* Árni *), North Arcot District.
Chittore (Chittúru, *Tel.* Chittoor *), North Arcot District.
Coonoor * (Kunnúr, *Tam.*), Neilgherry District.
Madanapully (Madanapalle,* *Tel.*), Cuddapah District.
Pulmanair (Palamanéri, *Tam.* Palmanér *), North Arcot District.
Tindivanam * (*Tam.*), South Arcot District.
Vellore * (Vélúr, *Tam.*), North Arcot District.

List XIV.—Strict Baptist Mission.

Chintaudripett (Shindátharippéttai, *Tam.*), Madras.
St. Thomas' Mount * (Parangimalai, *Tam.*), Chingleput District.
Poonamallee * (Púvirundamalli, *Tam.*), Chingleput District.
Christianpettah (Kiristtiyánbéttai, *Tam.*), near Watrap.
Yilaiyarasanendal (Ilaiyarasanéndal, *Tam.*), near Coilputty.
Yelayirampunnay (Ézháyirambannai, *Tam.*), near Tinnevelly.
Mailpoothoor (Mélapputhúr, *Tam.*), near Saulore.
Shendattiyaupooram (Shendattiyáppuram, *Tam.*), near Shunkaraneinarcoil.
Coovalaycunny (Kuvalaikkanny, *Tam.*), near Shunkaraneinarcoil.
Pooricoodiyamputty (Purikkudiyambatti, *Tam.*), near Shunkaraneinarcoil.

APPENDIX No. LXXV.

LIST OF STATIONS ON THE RAILWAYS OF THE PRESIDENCY, WITH DISTANCES IN MILES FROM MADRAS.

MADRAS RAILWAY.

(The miles are from the Central Station, Madras.)

SOUTH-WEST MAIN LINE.

4½ Royapooram (Ráyappuram, *Tam.* Ráyapuram *).
3½ Perambore (Perambúr,* *Tam.*).
10 Ambatore (Ambattúr, *Tam.* Ambatúr *).
13 Avady (Ávadi, *Tam.* Avadi *).
18 Tinnanore (Tinnanúr,* *Tam.*).
22¼ Shevvapett Road (Shevváppéttairottu, *Tam.* Sevvápet Road *).
26 Trivellore (Tiruvallúr,* *Tam.*).
29½ Cadambatore (Kadambattúr, *Tam.* Kadambatúr *).
36 Chinnammapett (Shinnammáppéttai, *Tam.* Chinnammápet *).
42½ Arconum (Árkkónam, *Tam.* Arkónam *) Junction.
(Here diverges the North-West Main Line.)
49¾ Menil (Minnal, *Tam.*).
55¾ Sholinghur * (Sholangippuram, *Tam.*).
65 Arcot * (Árkkádu, *Tam.*).
73 Tiroovallam (Tiruvallam,* *Tam.*).
80½ Vellore * (Vélúr, *Tam.*).
88¼ Virinjipooram (Viriñjíppuram, *Tam.* Virinjipuram *).
95¾ Goodiyattam (Gudiyáttam, *Tam.* Gudiyátam *).
101½ Oolly (Ulli, *Tam.*).
105½ Mailputty (Mélppatti, *Tam.* Mailpati*).
112¾ Amboor (Ámúr, *Tam.* Ambúr *).
122¾ Vaniyambaudy (Vániyambádi,* *Tam.*).
128 Kaitaundaputty (Kéthándappatti, *Tam.*).
132 Jollarpett (Sholárppéttai, *Tam.* Jalárpet *) Junction.
(Here diverges the Bangalore Branch.)
136¾ Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).
144 Caucangaray (Kágangarai, *Tam.*).
151¼ Samalputty (Shámalppatti, *Tam.* Sámalpati *).
156½ Cullauvy (Kallávi, *Tam.*).
166 Morapore (Morappúr, *Tam.* Mórappúr *).
174 Buddireddiputty (Pattirettippatti, *Tam.*).
180 Mallapooram (Malláppuram, *Tam.* Mallápuram *).
192 Shevaroy Hills * (Shérvaráyanmalai, *Tam.*).
206¾ Salem * (Shélam, *Tam.*) Sooramungalam (Shúramangalam, *Tam.*).
219¾ McDonald's Choultry * (McDonald Shávadi, *Tam.*).
230½ Shunkerrydroog (Shangagiritturukkam, *Tam.* Sankaridrug*).
240¾ Cauvery * (Kávéri, *Tam.*).
243 Erode * (I'ródu, *Tam.*) Junction.
252 Peroondoray (Perundurai,* *Tam.*).
266½ Ootcooly (Úttukkuli, *Tam.* Úttukuli *).
275 Tiroopore (Tiruppúr, *Tam.* Tirupúr *).
280 Mungallam (Mangalam,* *Tam.*).
286 Somanore (Shómanúr, *Tam.* Sómanúr*).
291¼ Shoolore (Shúlúr, *Tam.* Súlúr*).
296½ Shinganallore (Shingánallúr, *Tam.* Singánallúr*).
301¾ Pothanore (Póttanúr, *Tam.* Pódanúr *) Junction.
(Here diverges the Neilgherry Branch.)
308 Madoocoray (Madukkorai, *Tam.*).
316½ Valayaur (Válayár, *Mal.* Wálayár *).
323½ Canyicode (Kaññikkótu, *Mal.* Kanyikód *).
332 Palghaut (Pálakkátu, *Mal.* Pálghat *).
337¾ Parly (Parli,* *Mal.*).
347 Lukkidy (Lakkiti, *Mal.* Lakkidi *).
351½ Wottapollem (Ottappálam, *Mal.* Ottapálam *).
359½ Shoranore (Cheruvannúra, *Mal.* Shoranur *).
366¾ Pattaumby (Pattámpi, *Mal.* Pattámbi*).
378 Coottipooram (Kuttippuram, *Mal.* Kuttipuram *).
387½ Tiroor (Tirúra, *Mal.* Tirúr *).
392½ Tannore (Tándiyúr, *Mal.* Tánúr *).
397½ Parpanangaudy (Parappanannáti, *Mal.* Parpanangádi *).
306¼ Beypore * (Béppúra, *Mal.*).

NORTH-WEST MAIN LINE.

50½ Trittany (Tiruttani, *Tam.* Tirutani *).
59¾ Nagary (Nagari,* *Tel.*).
69¼ Puttoor (Pattúr, *Tam.* Patúr *).
78 Poody (Púdi,* *Tam.*).
83¾ Tripatty (Tiruppathi, *Tam.* Tirupati *).
92½ Maumandore (Mámandúru, *Tam.* Mámandúr *).
103 Peddapaud (Peddapádu, *Tel.* Peddapád *).
109 Codoor (Kódúru, *Tel.* Kódúr *).
117¼ Orampaud (Orampádu, *Tel.*).
121¾ Reddipully (Reddipalle,* *Tel.*).
129¾ Rajampett (Rájampéta, *Tel.* Rájampet *).
136¾ Nundalore (Nandalúru, *Tel.* Nandalúr *).
147 Vontimittah (Vontimitta,* *Tel.*).
161½ Cuddapah * (Kadapa, *Tel.*).
166¼ Krishnapooram (Krishnápuramu, *Tel.*).
176¼ Camalaupooram (Kamalápuramu, *Tel.* Kamalápuram *).
185¾ Yerragoontla (Yerraguntla,* *Tel.*).
195¾ Mooddanore (Muddanúru, *Tel.* Muddanúr *).
204¾ Mungaputnam (Mangapatnamu, *Tel.*).
210½ Condipooram (Kondápuramu, *Tel.* Kondápuram *).
219½ Vanganore (Vanganúru, *Tel.*).
227½ Tadpatry (Tádiparti, *Tel.* Tadpatri *).
233½ Pennair (Pennéru, *Tel.* Pennér *).
242¾ Royalcheroo (Ráyalcheruvu, *Tel.* Ráyalcheru *).
250 Jackalcheroo (Dzakkulacheruvu, *Tel.*).
257½ Gooty * (Gutti, *Tel.*).
264¾ Pautacottacheroo (Pátakottacheruvu, *Tel.* Pátakottacheru*).
273½ Goontacull (Guntakallu, *Tel.* Guntakal *).
(Here diverges the Bellary Branch).
281¼ Nuncherla (Nancherla,* *Tel.*).
295 Aspry (Áspari,* *Tel.*).
300 Nagaroor (Nagarúru, *Tel.*).
307½ Adony (Ádaváni, *Tel.* Ádóni *).
316 Coopgal (Kúpagallu, *Tel.* Kúpgal *).
325 Cosgy (Kósigi, *Tel.* Kósgi *).
333½ Toongabudra (Tungabhadra,* *Tel.*).
339¾ Matmurry.
350½ Ryechore (Raitsúru, *Tel.*).

BANGALORE BRANCH.

146¾ Mollanoor (Mollanúr, *Tam.*).
154¼ Cooppam (Kuppamu, *Tel.* Kuppam *).
168 Caumasamoodram (Kámasamuttiram, *Tam.* Kámasamudram *).
175¾ Colaur (Kolár) Road.
182¾ Tyaucal (Tyákallu, *Can.*).
192 Mallore (Málúru).
204¾ Caudoogoody (Kádugódi, *Can.*).
210½ Krishnarajapoora (Krishnarajapura, *Can.*).
216½ Bangalore * (Bengalúru, *Can.*) Cantonment.
219 Bangalore * (Bengalúru, *Can.*) City.

NEILGHERRY BRANCH.

305¼ Coimbatore * (Kóyamuttúr, *Tam.*).
311¼ Toodiyalore (Tudiyalúr,* *Tam.*).
316 Goodalore (Kúdalúr, *Tam.* Gúdalúr *).
322¾ Cauramaday (Káramadai, *Tam.* Karaimadai *).
327¼ Mettapolliem (Méttuppálaiyam, *Tam.* Mettupálaiyam *).

BELLARY BRANCH.

281¾ Buntanahal (Bantanahalu, *Tel.* Bantanahal *).
286¼ Baivanhully (Bévanahalli, *Can.*).
291½ Veerapore (Vírápuramu, *Tel.* Vírapur *).
297¼ Hagary (Hagari,* *Tel.*).
305½ Bellary * (Ballári, *Tel.*).

SOUTH INDIAN RAILWAY.

(*The miles are from Egmore, Madras.*)

MAIN LINE.

2¼ Beach, Madras.
1½ Fort, Madras.
¾ Park, Madras.
0 Egmore * (Ezhumbúr, *Tam.*).
1¼ Chetput (Shéttuppattu, *Tam.* Chetpat *).
3 Codambaukam (Kódambákkam, *Tam.* Kódambákam *).
5¼ Sydapett (Shaitháppéttai, *Tam.* Saidápet *).
8 St. Thomas' Mount * (Parangimalai, *Tam.*).
11½ Pallavaram (Pallávaram,* *Tam.*).
18½ Vandalore (Vandalúr,* *Tam.*).
22¼ Goodoovancherry (Kúduváñjéri, *Tam.* Gúduváncheri *).
29¼ Shingapermaulcoil (Shingapperumálgóvil, *Tam.* Singaperumálkoil *).
34½ Chingleput * (Shengalppattu, *Tam.*).
(*Here diverges the Arconum* (*Árkkónam, Tam. Arkónam* *) *Branch.*)
40¼ Colatore (Kolattúr, *Tam.* Kolatúr *), North.
42½ Pattaulam (Pattálam, *Tam.* Padálam *).
49¾ Madrantacam (Mathurándagam, *Tam.* Madurántakam *).
58¼ Acharapaukam (Açˌçaravákkam, *Tam.* Acharapákam *).
62¾ Peroombair (Perumbér, *Tam.*).
68 Olacore (Olakkúr, *Tam.* Olakúr *).
75¼ Tindivanam * (*Tam.*).
81 Meilam (Mailam,* *Tam.*).
90¼ Vicravandy (Vikkiravándi, *Tam.* Vikravándi *).
98¼ Villoopooram (Villuppuram, *Tam.* Villupuram *).
(*Here diverges the Pondicherry* * (*Puthuççéri, Tam.*) *Branch.*)
110½ Panrooty (Pannurutti, *Tam.* Panruti *).
118¾ Nellicooppam (Neilikkuppam, *Tam.* Nellikuppam *).
124¾ Cuddalore * (Kúdalúr, *Tam.*) New Town.
127¼ Cuddalore * (Kúdalúr, *Tam.*) Old Town.
134½ Alapaukam (Álappákkam, *Tam.* Álapákam *).
144¼ Porto Novo * (Parangippéttai, *Tam.*).
151 Chidambaram * (Shithambaram, *Tam.*).
155½ Coleroon * (Kollidam, *Tam.*).
161½ Shiyally (Shiyyázhi, *Tam.* Shiyáli *).
165¼ Veitheeswarancoil (Vaittésuvarangóvil, *Tam.* Vaithísvarankoil *).
169¾ Antaundavapooram (Ânaithándavappuram, *Tam.* Ântándavapuram *).
173¾ Mayavaram (Máyavaram,* *Tam.*).
179¼ Courtallam (Kuttálam,* *Tam.*).
183¼ Narasingapett (Nárasingambéttai, *Tam.* Narasinganpet *).
188¼ Tiroovadamaroothore (Tiruvidaimaruthúr, *Tam.* Tiruvadamarudúr *).
193¼ Combaconam (Kumbagónam, *Tam.* Kumbakónam *).
198¾ Soondrapermaulcoil (Shundarapperumálgóvil, *Tam.* Sundaraperumálkoil *).
202¼ Paupanausam (Páppavinásam, *Tam.* Pápanásam*).
206¾ Ayyampett (Ayyambéttai, *Tam.* Ayyampet *).
211½ Tittey (Titte,* *Tam.*)
217½ Tanjore * (Tañjávúr, *Tam.*).
(*Here diverges the Negapatam* * (*Nágappattanam, Tam.*) *Branch.*)
228½ Boothalore (Púthalúr, *Tam.* Búdalúr *).
242¼ Tirooveroomboor (Tiruvarambúr, *Tam.* Tiruverumbúr *).
248½ Trichinopoly * (Tiruççináppalli, *Tam.*) Junction.
(*Here diverges the Erode* * (*Íródu, Tam.*) *Branch.*)
260 Colatore (Kolattúr, *Tam.* Kolatúr *) South.
271 Manapauray (Manappárai, *Tam.* Manapárai *).
279¾ Veiyamputty (Vaiyambatti, *Tam.* Vaiyampati *).
290¾ Ayyaloor (Ayyalúr,* *Tam.*).
295¾ Vada Madura (Vadamathurai, *Tam.* Vadamadura *).

MAIN LINE—(*Continued*).

306 Dindigul * (Tindukkal, *Tam.*).
312¾ Ambatooray (Ambatturai, *Tam.* Ambaturai *).
319½ Ammayanayakanoor (Ammayanáyakkanúr, *Tam.* Ammayanáyakanúr *).
331¼ Sholavandaun (Shózhavandán, *Tam.* Sholavandán *).
336¾ Shamayanallore (Shamaiyanallúr, *Tam.* Samayanallúr *).
344½ Madura * (Mathurai, *Tam.*).
348¾ Tirooparacoondram (Tirupparangunram, *Tam.* Tiruparankundram *).
355¼ Tiroomungalam (Tirumangalam,* *Tam.*).
364½ Culligoody (Kallikkudi, *Tam.* Kalligudi *).
371¼ Viroothooputty (Viruthuppatti, *Tam.* Virudupati *).
380¾ Tooloocaputty (Tulukkappatti, *Tam.* Tulukapati *).
388 Shautore (Sháttúr, *Tam.* Sátúr *).
401¼ Coilputty (Kóvilppatti, *Tam.* Koilpati *).
407¾ Comaurapooram (Kumárappuram, *Tam.* Kumárapuram *).
415 Cadambore (Kadambúr,* *Tam.*).
425 Maniyauchy (Maniyáççi, *Tam.* Maniyáchi *) Junction.
(*Here diverges the Tinnevelly Branch.*)
433¾ Tattapauray (Tattappárai, *Tam.* Tatapárai *).
443¼ Tuticorin * (Túttukkudi, *Tam.*).

ARCONUM BRANCH.

41½ Villiambaukum (Villiambákkam, *Tam.*).
48 Wallajahbad (Válájábád, *Hind.* Wálajábád *).
56 Conjeeveram * (Káñjíppuram, *Tam.*).
64½ Paulore (Pálúr,* *Tam.*).
73½ Arconum (Árkkónam, *Tam.* Arkónam *).

PONDICHERRY BRANCH.

103¾ Valavanoor (Valavanúr, *Tam.*).
111¾ Cundamungalam (Kandamangalam, *Tam.*).
118 Villenoor (Villiyanúr, *Tam.*).
122½ Pondicherry * (Puthuççéri, *Tam.*).

NEGAPATAM BRANCH.

227¾ Shaulyamungalam (Sháliyamangalam, *Tam.* Sáliyamangalam *).
230 Ammapett (Ammáppéttai, *Tam.* Ammápet *).
236¼ Needamungalam (Nídámangalam,* *Tam.*).
241¼ Coradahcherry (Koradáççéri, *Tam.* Koradáchéri *).
247½ Coolicaray (Kulikkarai, *Tam.* Kulikarai *).
251¼ Tiroovalore (Tiruválúr,* *Tam.*).
258½ Keevalore (Kívalúr,* *Tam.*).
262½ Sikkil * (Shikkal, *Tam.*).
265½ Negapatam * (Nágappattanam, *Tam.*).

ERODE BRANCH.

251 Trichinopoly * (Tiruççináppalli, *Tam.*).
269½ Yelamanore (Elamanúr,* *Tam.*).
267 Pettavyetalay (Péttaiváyttalai, *Tam.*).
271½ Coolitalay (Kulittalai, *Tam.* Kulitalai *).
277½ Laulapett (Láláppéttai, *Tam.* Lálápet *).
284½ Cuttalay (Kattalai, *Tam.* Katalai *).
295¾ Caroor (Karúr,* *Tam.*).
304¾ Poogalore (Pogalúr, *Tam.* Púgalur *).
312½ Codoomoody (Kodumudi,* *Tam.*).
316¼ Oonjalore (Úñjalúr, *Tam.* Unjalúr *).
324½ Passore (Pásúr, *Tam.* Pásur *).
335¾ Erode * (Íródu, *Tam.*).

TINNEVELLY BRANCH.

434¼ Gungaycondaun (Kangaikkondán, *Tam.* Gangaikondán.)*
443¼ Tinnevelly * (Tirunelvéli, *Tam.*).

APPENDIX No. LXXVI.

TABLES AND NOTES SHOWING THE HEAD-QUARTERS OF THE PRINCIPAL GAZETTED OFFICERS IN THE PRESIDENCY, ARRANGED GEOGRAPHICALLY.

TABLE I.

District.	1. Collector. 2. Assistant Collector. 3. Treasury Deputy Collector. 4. Superintendent of Police.	Sub-Collector or Principal Assistant Collector.	Head Assistant or Senior Assistant Collector.	Special Assistant Collector.	Deputy Collector on General Duties.
1. Ganjam	Chetterpore (Chhatrapuramu, *Tel.* Chatrapur*).	Chicacole* (Shríkákulamu, *Tel.*)...	Berhampore* (Brahmapuramu *Tel.*).	Russellcondah (Rasúlukonda, *Tel.* Russellkonda*). Balligooda (Balliguda,* *Tel.*).	Russellcondah (Rasúlukonda, *Tel.* Russellkonda*). ......
2. Vizagapatam ...	Vizagapatam* (Vishákhapatnamu, *Tel.*).	Narsapatam (Narasapatnamu, *Tel.* Narsapatnam*).	Parvatipore (Párvatípuramu, *Tel.* Párvatipur*).	Coraputt (Kórápatti, *Tel.*) ...	Vizianagram* (Vijayanagaramu, *Tel.*).
3. Godavery ...	Cocanada* (Kákináda, *Tel.*) ...	Rajahmundry* (Rájamahéndravaramu, *Tel.*).	Ellore* (Ellúru, *Tel.*)	Vaddigoodem (Vaddigúdemu).	Narsapore (Narasápuramu, *Tel.* Narsápur*).
4. Kistna	Masulipatam* (Machilípatnamu, *Tel.*).	Goontoor (Guntúru, *Tel.* Guntúr*).	Bezwada (Bedzaváda, *Tel.* Bezváda*).	......	Vinoocondah (Vinukonda,* *Tel.*).
5. Nellore	Nellore* (Nellúru, *Tel.*)	Ongole* (Vangólu, *Tel.*)	Nellore* (Nellúru, *Tel.*)	......	Naidoopett (Náyudipéta, *Tel.* Náyudupet*).
6. Kurnool ...	Kurnool* (Karnúlu, *Tel.*)	......	Nundiaul (Nandyála, *Tel.* Nandyál*).	......	Cumbum* (Kambhamu, *Tel.*). Pyaupaly (Pyápali,* *Tel.*).
7. Anantapore ...	Anantapore (Anantapuramu, *Tel.* Anantapur*).	......	Penoocondah (Penukonda,* *Tel.*) ...	......	Gooty* (Gutti, *Tel.*).
8. Bellary	Bellary* (Ballári, *Tel.*)	......	Hospett (Hosapéte, *Can.* Hospet*).	......	Adony (Ádaváni, *Tel.* Ádóni*).
9. Cuddapah ...	Cuddapah* (Kadapa, *Tel.*)	Madanapully (Madanapalle,* *Tel.*)	Cuddapah* (Kadapa, *Tel.*) ...	......	Sidhout (Siddhavattamu, *Tel.* Siddhavattam*).
10. Madras	Madras* (Shennappattanam, *Tam*).	......	......	......	Madras* (Shennappattanam, *Tam.*)
11. Chingleput ...	Sydapett (Shaithápéttai, *Tam.* Saidápet*).	Chingleput* (Shengalppattu, *Tam.*).	......	......	Guindy* (Kindi, *Tam.*).
12. North Arcot ...	Chittore (Chittúru, *Tel.* Chittoor*).	Vellore* (Vélúr, *Tam.*)	Ranipett (Ránippéttai, *Tam.*) ...	......	Árnee (Árani, *Tam.* Árni*).
13. South Arcot ...	Cuddalore* (Kúdalúr, *Tam.*) ...	Tindivanam* (*Tam.*)	Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam*).	......	Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr*).
14. Salem	Salem* (Shélam, *Tam.*)	Oossoor (Hosúru, *Can.* Hosúr*) ...	Tripatore (Tiruppattúr, *Tam.* Tirupatúr*).	......	Namcull (Námakkal, *Tam.* Námakal*).
15. Trichinopoly ...	Trichinopoly* (Tiruççináppalli, *Tam.*)	......	Moosiry (Musiri,* *Tam.*)	......	Ariyaloor (Ariyalúr,* *Tam.*).
16. Tanjore ...	Tanjore* (Tañjávúr, *Tam.*) ...	Combaconam (Kumbagónam, *Tam.* Kumbakónam*).	Negapatam* (Nágappattanam, *Tam.*)	......	Tanjore* (Tañjávúr, *Tam.*). Munnargoody (Mannárkkudi, *Tam.* Mannárgudi*).
17. Madura	Madura* (Mathurai, *Tam.*) ...	Dindigul* (Tindukkal, *Tam.*) ...	Ramnaud (Rámanáthappuram, *Tam.* Ramnad*).	......	Madura* (Mathurai, *Tam.*).
18. Tinnevelly ...	Palamcottah*(*a*) (Pálaiyangóttai, *Tam.*).	Tuticorin* (Túttukkudi, *Tam.*) ...	Shermadevy (Shérmáthévi, *Tam.* Shermádevi*).	......	Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur*).
19. Coimbatore ...	Coimbatore* (Kóyamuttúr, *Tam.*).	Erode* (Íródu, *Tam.*)	Pollachy (Polláççi, *Tam.* Polláchi*).	......	Suttimungalam (Shattiyamangalam, *Tam.* Satyamangalam*).
20. Neilgherries ...	Ootacamund* (Ottagaimandu, *Tam.*)	......	Devalah (Déváła, *Mal.* Deváła*). ...	......	Ootacamund* (Ottagaimandu, *Tam.*)
21. Malabar	Calicut* (Kozhikkóta, *Mal.*) ...	Tellicherry* (Talashsheri, *Mal.*) ...	Palghaut (Pálakkátu, *Mal.* Pálghat*).	Malapooram (Malappuram, *Mal.* Malapuram*).	Manantoddy* (Mánantóti, *Mal.*). Cochin* (Koççi, *Mal.*). Ponnany (Ponnáni, *Mal.* Ponáni*).
22. South Canara ...	Mangalore* (Mangalúru, *Can.*) ...	......	Coondapore (Kundápura, *Can.* Coondapoor*).	......	Poottoor (Puttúru, *Can.*).

Special addresses in column 2—

Collector of Tinnevelly—"Railway Post Office, Tinnevelly." Collector of Tanjore—Vullam. Supt. of Police, Godavery—Rajahmundry. Supt. of Police, Chingleput—St. Thomas' Mount. Supt. of Police, Jeypore—Coraputt.

Police.—Dy. Inspr.-Genl. of Police, Northern Range, including the local areas of Dists. 1 to 4—Waltair. Central Range, including the local areas of Dists. 5 to 13—Guindy. Southern Range, including the local areas of Dists. 14 to 22—Coimbatore.

Revenue Settlement.—Rev. Settl., North Arcot, No. I Party—Chittore. No. II Party—Vellore. Madura, No. III Party—Madura. Neilgherries, No. IV Party—Ootacamund. South Arcot, No. V Party—Cuddalore.

TABLES AND NOTES SHOWING THE HEAD-QUARTERS OF THE PRINCIPAL GAZETTED OFFICERS IN THE PRESIDENCY, &c.—(*Contd.*).

TABLE II.

District.	District Judge.	Subordinate Judge.	Assistant Superintendent of Police.	Assistant Commissioner, Salt.	Deputy and Assistant Conservator of Forests.	Inspector of Schools.
1. Ganjam (*a*) ...	Berhampore* (Brahmapuramu, *Tel.*).	......	Russellcondah (Rasúlukonda, *Tel.* Russellkonda*). Kimedy (Kimedi, *Tel.*). Parvatipore (Párvatípuramu, *Tel.* Párvatipur*). Narsapatam (Narasapatnamu, *Tel.* Narsapatnam*). Coraputt (Kórápatti, *Tel.*) ...	Vizagapatam (Vishákhapatnamu, *Tel.*).	Russellcondah (Rasúlukonda, *Tel.* Russellkonda*).	Waltair* (Váltéru, *Tel.*) 1st Division.
2. Vizagapatam (*a*).	Vizagapatam* (Vishákhapatnamu, *Tel.*).	Vizagapatam* (Vishákhapatnamu, *Tel.*).				
3. Godavery (*a*) ...	Rajahmundry* (Rájamahéndravaramu, *Tel.*).	Cocanada* (Kákináda, *Tel.*).	Narsapore (Narasápuramu, *Tel.* Narsápur*).	Cocanada* (Kákináda, *Tel.*).		Ramandroog (Rámanadurgamu, *Tel.* Rámandrug*).
4. Kistna (*a*) ...	Masulipatam* (Machilípatnamu, *Tel.*).	......	Goontoor (Guntúru, *Tel.* Guntúr*).		Masulipatam* (Machilípatnamu, *Tel.*).	
5. Nellore (*a*) ...	Nellore* (Nellúru, *Tel.*) ...	......	Ongole* (Vangólu, *Tel.*) ...	Nellore* (Nellúru, *Tel.*) ...	Nellore* (Nellúru, *Tel.*) ...	Madras* (Shennappattanam, *Tam.*).
6. Kurnool (*a*) ...	Kurnool* (Karnúlu, *Tel.*) ...	......	Cumbum* (Kambhamu, *Tel.*).	......	Nundiaul (Nandyála, *Tel.* Nandyál*).	Ramandroog (Rámanadurgamu, *Tel.* Rámandrug*), 2nd Division.
7. Anantapore (*a*) 8. Bellary (*a*)	Bellary* (Ballári, *Tel.*) ...	Tadpatry (Tádiparti, *Tel.* Tadpatri*).	......	......	Anantapore (Anantapuramu, *Tel.* Anantapur*). Bellary* (Ballári, *Tel.*) ...	
9. Cuddapah (*a*) ...	Cuddapah* (Kadapa, *Tel.*) ...	......	Madanapully (Madanapalle,* *Tel.*).	......	Cuddapah (Kadapa, *Tel.*) ...	
10. Madras	......	......	......	......	Codoor (Kódúru, *Tel.* Kódúr*).	Madras* (Shennappattanam, *Tam.*).
11. Chingleput (*b*) ...	Chingleput* (Shengalppattu, *Tam.*).	......	......	Madras* (Shennappattanam, *Tam.*).	Sydapett (Shaithápéttai, *Tam.* Saidápet*).	
12. North Arcot (*b*).	Chittore (Chittúru, *Tel.* Chittoor).	......	Vellore* (Vélúr, *Tam.*) ...	......	Vellore* (Vélúr, *Tam.*) ...	Yercaud* (Erkkád, *Tam.*), 4th Division.
13. South Arcot (*b*).	Cuddalore* (Kúdalúr, *Tam.*).	Cuddalore* (Kúdalúr, *Tam.*).	Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr*).	Negapatam* (Nágappattanam, *Tam.*).	Cuddalore* (Kúdalúr, *Tam.*).	
14. Salem (*b*) ...	Salem* (Shélam, *Tam.*) ...	......	Tripatore (Tiruppattúr, *Tam.* Tirupatúr*).	......	Salem* (Shélam, *Tam.*) ...	
15. Tanjore (*b*)	Tranquebar* (Tarangambádi, *Tam.*). Tanjore* (Tañjávúr, *Tam.*).	Tanjore* (Tañjávúr, *Tam.*) Combaconam (Kumbagónam, *Tam.* Kumbakónam*). Negapatam* (Nágappattanam, *Tam.*).	Negapatam* (Nágappattanam, *Tam.*).	Negapatam* (Nágappattanam, *Tam.*).	......	Pulney (Pazhani, *Tam.* Palni*) Hills, 5th Division.
16. Madura (*b*) ...	Madura* (Mathurai, *Tam.*)...	Madura* (Mathurai, *Tam.*)...	Ramnaud (Rámanáthapuram, *Tam.* Ramnad*).	......	Madura* (Mathurai, *Tam.*)...	
17. Tinnevelly (*b*) ...	Palamcottah* (Pálaiyangóttai, *Tam.*).	Tinnevelly* (Tirunelvéli, *Tam.*).	Tuticorin* (Túttukkudi, *Tam.*).	Tuticorin* (Túttukkudi, *Tam.*)	Palamcottah* (Pálaiyangóttai, *Tam.*).	
18. Coimbatore (*b*) ...	Coimbatore* (Kóyamuttúr, *Tam.*).	......	Erode* (Íródu, *Tam.*) ...	......	Coimbatore* (Kóyamuttúr, *Tam.*).	Coonoor* (Kunnúr, *Tam.*), 6th Division.
19. Neilgherries (*a*)...	Ootacamund* (Ottagaimandu *Tam.*).	Ootacamund* (Ottagaimandu, *Tam.*).	......	......	Ootacamund* (Ottagaimandu, *Tam.*).	
20. Malabar (*b*)	Tellicherry* (Talashsheri, *Mal.*). Calicut* (Kozhikkóta, *Mal.*).	Calicut* (Kozhikkóta, *Mal.*). Palghaut (Pálakkátu, *Mal.* Pálghat*). Tellicherry* (Talashsheri, *Mal.*).	Malapooram (Malappuram, *Mal.* Malapuram*). Palghaut (Pálakkátu, *Mal.* Pálghat*). Tellicherry* (Talashsheri, *Mal.*).	......	Calicut* (Kozhikkóta, *Mal.*). Nelambore* (Nilampúra, *Mal.* Nilambúr*).	
21. Trichinopoly (*b*).	Trichinopoly* (Tiruççináppalli, *Tam.*).	......	......	Negapatam* (Nágappattanam, *Tam.*).	Trichinopoly* (Tiruççináppalli, *Tam.*).	
22. South Canara (*b*).	Mangalore* (Mangalúru, *Can.*).	Mangalore* (Mangalúru, *Can.*).	......	......	Mangalore* (Mangalúru, *Can.*).	7th Division.

Salt.—Deputy Commissioner of Salt Revenue, Northern Division, including the local areas under the control of the Vizagapatam, Masulipatam and Nellore Assistant Commissioners—Vizagapatam. Southern Division, including the local areas under the control of the Chingleput, Negapatam, Tinnevelly and Central Division Assistant Commissioners—Cuddalore.

Forests.—(*a*) Under the control of the Conservator of Forests, Northern Circle. (*b*) Under the control of the Conservator of Forests, Southern Circle.

APPENDIX No. LXXVII.

STATEMENT SHOWING THE INCIDENCE OF IMPERIAL AND PROVINCIAL TAXATION ON EACH HEAD OF POPULATION ACCORDING TO LOCALITIES FOR 1883-84.

Districts.	Land revenue.		Salt.		Stamps.		Excise.		Opium.		Sea customs.		Land customs.		Assessed taxes.	
	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.	Amount of revenue.	Rate per head.
	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.
Anantapore	9,16,573	1 8 5			57,041	0 1 6	1,76,320	0 4 8	106		...	...	...	...	13,313	0 0 4
Arcot, North	24,47,852	1 5 6			1,95,186	0 1 8	3,55,003	0 3 1	209		...	...	...	...	30,914	0 0 3
Arcot, South	31,66,709	1 11 11			2,07,275	0 1 9	3,67,231	0 3 3	1,499		16,587	...	16,320	...	10,210	0 0 1
Bangalore	...	...			4,953	...	...	...	...		...	...	...	...	...	...
Bellary	13,18,009	1 13 0			1,04,723	0 2 3	3,78,229	0 8 4	8,620		...	...	...	...	35,271	0 0 9
Canara, South ...	12,41,354	1 4 8			2,07,085	0 3 6	1,26,585	0 2 1	2,959		11,265	...	...	...	13,167	0 0 3
Chingleput	18,75,633	1 14 7			1,08,644	0 1 9	2,53,580	0 4 2	1,525		...	...	...	...	9,861	0 0 2
Coimbatore	28,88,450	1 11 10			2,26,537	0 2 1	2,35,316	0 2 3	2,758		...	...	...	...	15,158	0 0 2
Cuddapah	18,56,203	1 10 5			1,48,125	0 2 1	1,79,704	0 2 7	17,193		...	...	...	...	22,599	0 0 4
Ganjam	12,07,980	0 11 0			1,46,322	0 1 4	1,07,477	0 1 0	7,787		90,244	...	...	...	9,813	0 0 1
Godavery	44,03,232	2 7 4			3,41,697	0 2 11	2,92,930	0 2 7	2,91,733		6,757	...	39	...	25,337	0 0 3
Kistna	45,40,465	2 14 11	1,38,55,126	0 6 1	2,09,428	0 2 2	2,20,126	0 2 3	38,575	0 0 4	1,357	...	...	...	42,531	0 0 5
Kurnool	13,66,088	2 0 3			83,988	0 1 11	1,66,646	0 4 0	5,395		...	...	...	...	19,965	0 0 6
Madras	86,480	0 3 2			6,47,214	1 9 6	11,42,080	2 13 0	1,08,185		4,81,096	0 0 7	...	...	48,061	0 1 11
Madura	26,83,196	1 3 9			3,82,182	0 2 9	1,96,336	0 1 5	2,984		4,481	...	...	...	25,555	0 0 2
Malabar	18,72,003	0 12 8			7,71,821	0 5 2	2,04,146	0 1 4	10,337		30,472	...	4,763	...	27,884	0 0 2
Neilgherries	1,24,007	1 5 10			47,680	0 8 4	1,70,380	1 13 11	4,616		...	...	...	...	6,008	0 1 1
Nellore	25,06,263	2 0 10			1,54,836	0 1 11	1,26,830	0 1 8	2,835		7	...	...	...	17,775	0 0 3
Salem	21,10,679	1 5 1			1,66,577	0 1 7	3,04,474	0 3 0	2,673		...	...	...	...	23,162	0 0 3
Tanjore	44,64,386	2 1 6			6,76,534	0 5 1	4,97,586	0 3 8	4,658		3,77,193	...	94,669	...	36,863	0 0 3
Tinnevelly	32,76,065	1 14 10			3,35,086	0 3 2	1,19,566	0 1 1	1,242		18,550	...	...	...	10,612	0 0 1
Travancore	4,117	...			7,669	...	1	...	...		...	...	...	...	...	...
Trichinopoly	16,25,753	1 5 5			1,68,769	0 2 2	1,49,749	0 2 0	5,200		...	...	...	...	6,311	0 0 1
Vizagapatam	14,32,494	0 9 3			2,25,490	0 1 5	2,08,906	0 1 3	1,11,694		4,798	...	...	...	15,905	0 0 1
Total ...	4,74,13,991	1 8 8	1,38,55,126	0 6 1	56,24,862	0 2 10	59,79,201	0 3 1	6,32,783	0 0 4	10,42,807	0 0 7	1,15,791	...	4,66,275	0 0 3

APPENDIX No. LXXVIII.

WARRANTS OF PRECEDENCE.

(A) Warrant of Precedence for the whole of India, dated 1st November 1877.

(a) *Principal List.*

1. Governor-General and Viceroy of India.
2. Governors of Madras and Bombay.
3. President of the Council of the Governor-General.
4. Lieutenant-Governor of Bengal, the North-Western Provinces, or the Punjaub, when in his own territories.
5. Commander-in-Chief in India.
6. Lieutenant-Governors of Bengal, the North-Western Provinces, and the Punjaub.
7. Chief Justice of Bengal.
8. Bishop of Calcutta, Metropolitan of India.
9. Ordinary Members of the Council of the Governor-General.
10. Commanders-in-Chief in Madras and Bombay.
11. Commander-in-Chief of Her Majesty's Naval Forces in India, unless senior in relative rank to the Commander-in-Chief of Madras and Bombay, in which case he will take the precedence.
12. Chief Justices of Madras, Bombay, and the North-Western Provinces.
13. Bishops of Madras and Bombay.
14. Ordinary Members of Council in Madras and Bombay.
15. Chief Commissioners and Resident at Hyderabad, and Agents to the Governor-General in Rajpootana, Central India, and Baroda.
16. Puisne Judges of the High Courts of Calcutta, Madras, Bombay, and the North-Western Provinces.
17. Military Officers above the rank of Major-General.
18. Additional Members of the Council of the Governor-General, when assembled to make Laws, &c.

18A. Lord Bishops of Lahore and Rangoon.

19. Secretaries to the Government of India.
20. Commissioner in Scinde.
21. Judges of the Chief Court, Punjaub.
22. Additional Members of the Council of the Governors of Madras and Bombay, when assembled to make Laws, &c.
23. Chief Secretaries to the Governments of Madras and Bombay.
24. Members of the Legislative Council of the Lieutenant-Governor of Bengal.
25. Vice-Chancellors of Indian Universities.

First Class.

26. Civilians of thirty-one years' standing and Major-Generals.
27. Advocate-General, Calcutta.
28. Advocates-General, Madras and Bombay.
29. Members of the Boards of Revenue, Madras, Bengal, and the North-Western Provinces, and Commissioners of Revenue and Customs, Bombay.
30. Financial Commissioner, Punjaub.
31. Judicial Commissioners, and the Recorder of Rangoon.
32. Comptroller-General of Accounts in India.
33. Commissioners of Divisions within their own divisions, and Residents, Political Agents, and Superintendents on pay of Rupees 2,000 per mensem or more (not being Collectors or Deputy Commissioners of British Districts) within their own charges.
34. Civil and Military Secretaries to Governments, Madras and Bombay, and Civil Secretaries to Governments, Bengal, North-Western Provinces, and Punjaub.
35. Surveyor-General of India, and Directors-General of the Post Office, and of Telegraphs.
36. Chief Engineers, 1st Class.
37. Archdeacons of Calcutta, Madras, and Bombay.
38. Brigadiers-General.

Second Class.

39. Civilians of twenty-three years' standing and Colonels.
40. Commissioners of Divisions and Commissioners of Police, Calcutta.
41. Private Secretary to the Viceroy.
42. Residents, Political Agents, and Superintendents on pay of Rupees 2,000 per mensem or more (not being Collectors or Deputy Commissioners of British Districts).
43. Superintendent, Great Trigonometrical Survey.
44. Commissioner of Inland Customs.
45. Sanitary Commissioner with the Government of India.
46. Superintendent of the Geological Survey.
47. Inspector-General of Forests in India.
48. Standing Counsel to the Government of India.
49. Military Accountant-General.
50. Directors of Public Instruction under local Governments.
51. Accountants-General for local Governments.
52. Inspectors-General of Police under local Governments.
53. Director of Revenue Settlement, and Superintendent of Revenue Survey, Madras; Survey and Settlement Commissioners, Bombay; Commissioner of Settlements, Punjaub.
54. Remembrancers of Legal Affairs and Government Advocates in the North-Western Provinces, the Punjaub, and British Burmah.
55. Consulting Engineers to the Government of India for Guaranteed Railways, Calcutta and Lahore, and Chief Engineers, 2nd and 3rd Classes, under local Governments.
56. District and Sessions Judges, Collectors and Magistrates of Districts, Deputy Commissioners of Districts, Deputy Superintendent of Port Blair, and the Chief Officer of each Presidency Municipality, within their respective charges.
57. Officers in the 1st Class, graded list of civil offices not reserved for members of the Covenanted Civil Service.

Third Class.

58. Civilians of eighteen years' standing and Lieutenant-Colonels.
59. Political Agents and Superintendents on pay of Rupees 1,000 per mensem, but less than Rupees 2,000 (not being Collectors or Deputy Commissioners of British Districts) within their own charges.
60. Military Secretary to the Government of Punjaab, and Civil Secretaries to local Administrations.
61. Private Secretaries to Governors.

62. Directors of Public Instruction under local Administrations.
63. Administrators-General, Calcutta, Madras, and Bombay.
64. Inspectors-General of Jails and of Registration, Sanitary Commissioners, Inspectors and Conservators of Forests under local Governments, and Postmasters-General.
65. Accountants-General for local Administrations.
66. Consulting Engineer to the Government of India for Guaranteed Railways, Lucknow, and Chief and Superintending Engineers when Secretaries to local Administrations, or to Agents to the Governor-General.
67. Inspectors-General of Police under local Administration.
68. Senior Chaplains.
69. Superintendent of Marine, Bombay.
70. Master Attendants.
71. Sheriffs within their own charges.
72. Officers in the 2nd Class, graded list of civil offices not reserved for members of the Covenanted Civil Service.

Fourth Class.

73. Civilians of twelve years' standing and Majors.
74. Political Agents and Superintendents on pay less than Rupees 1,000 per mensem, within their own charges.
75. Government Solicitors.
76. Inspectors-General of Jails and of Registration, Sanitary Commissioners, and Conservators of Forests under local Administrations.
77. Officers in the 3rd Class, graded list of civil offices not reserved for members of the Covenanted Civil Service.

(*b*) *Supplementary List.*

(Civil offices not reserved for members of the Covenanted Civil Service, under Nos. 57, 72, and 77 above).

First Class.—(Number 57 of the Warrant).

Deputy Comptroller-General.
Deputy Secretaries to the Government of India.
Deputy Surveyors-General and Superintendents of Revenue Survey.
Directors of State Railways.
Inspector of Local Offices of Account.
Commissioner of Salt Revenue, Madras Presidency.
Venerable the Archdeacon of Lahore.

Second Class.—(Number 72 of the Warrant).

Chairman of the Port Trust, Calcutta.
Chairman of the Town Council, Bombay.
Commissioners of Police, Madras and Bombay.
Deputy Accountants-General to Local Governments.
Deputy Commissioners of Districts and of Settlements.
Deputy Director-General of the Post Office.
Deputy Director-General of Telegraphs.
Deputy Inspectors-General of Police.
Deputy Superintendents of Revenue, Topographical, and Trigonometrical Surveys, 1st Grade.
Deputy Superintendent of Port Blair.
Directors of Traffic and Construction, Telegraph Department.
Educational Department Officers, 1st Grade.
Examiners of Accounts, Public Works Department, 1st Class and 2nd Class, 1st Grade.
First Judges of Presidency Courts of Small Causes.
Geological Survey Officers, 1st Grade.
Government Astronomer, Madras.
Superintendent of Royal Botanical Gardens, Calcutta.
Superintendent of Marine Survey.
Superintendent of Inam Settlements, Mysore.
Superintendents of Revenue Survey and Assessment, Bombay and Mysore.
Superintending Engineers, Public Works Department.
Under Secretaries to the Government of India.
District Judges in Oudh who are not Covenanted Civilians.
Deputy Director of the Persian Gulf Section of the Indo-European Telegraph.
Principal of the Mayo College at Ajmeer.

Third Class.—(Number 77 of the Warrant).

Assistant Secretaries to the Government of India.
Deputy Commissioner, Inland Customs.
Deputy Commissioner of Police, Calcutta.
Deputy Directors of Revenue Settlements, and Deputy Superintendents of Revenue Surveys, Madras.
Deputy Superintendents of Revenue, Topographical and Trigonometrical Surveys, 2nd Grade.
Educational Department Officers, 2nd Grade.
Examiners of Accounts, Public Works Department, 2nd Class, 2nd Grade.
Executive Engineers, Public Works Department, 1st Grade.
Geological Survey Officers, 2nd Grade.
Inspector-in-Chief, Cotton Frauds, Bombay.
Junior Judge of Presidency Courts of Small Causes.
Presidency Magistrates.
Registrars to the High Courts and to the Chief Court, Punjaub.
Settlement Officer, Scinde.
Superintendent of the Indian Museum.
Superintendents of Stamps and Stationery.
Superintendents, Telegraph Department, 1st and 2nd Grades.
Engineer and Electrician of the Persian Gulf Section of the Indo-European Telegraph.
Deputy Commissioners of Salt Revenue, Madras.

Remarks.—Officers in the above tables will take precedence in order of the numbers of the entries. Those included in one number will take precedence 'inter se' according to the date of entry into that number. 2. When an officer holds more than one position in the table, he will be entitled to the highest position accorded to him. 3. Officers who are temporarily officiating in any number in the table will rank in that number below permanent incumbents. 4. All officers not mentioned in the above table, whose rank is regulated by comparison with rank in the army, to have the same rank with reference to Civil servants as is enjoyed by Military Officers of equal grades. 5. All other persons who may not be mentioned in this table to take rank according to general usage, which is to be explained and determined by the Governor-General in Council in case any question shall arise. 6. Nothing in the foregoing Rules to disturb the existing practice relating to precedence at Native Courts, or on occasions of intercourse with natives, and the Governor-General in Council to be empowered to make rules for such occasions in case any dispute shall arise. 7. All ladies to take place according to the rank herein assigned to their respective husbands, with the exception of wives of Peers, and of ladies having precedence in England independently of their husbands, and who are not in rank below the daughters of Barons, such ladies to take place according to their several ranks, with reference to such precedence in England, immediately after the wives of Members of Council at the Presidencies in India.

(B)—Warrant of Precedence for Madras Presidency (being in accordance with the List for India).

1. The Governor.
2. „ Commander-in-Chief.
3. „ Chief Justice.
4. „ Bishop.
5. „ Members of Council.
6. „ Puisne Judges of the High Court.
7. Military Officers above the rank of Major-General.
8. Additional Members of Council, when assembled to make Laws and Regulations.
9. The Chief Secretary to Government.
10. „ Vice-Chancellor of the University.

First Class.

11. Civilians of thirty-one years' standing and Major-Generals.
12. The Advocate-General.
13. „ Members of the Board of Revenue.
14. „ Resident in Travancore within his charge.
15. Secretaries to Government.
16. Chief Engineers, 1st Class.
17. The Archdeacon.
18. Brigadiers-General.

Second Class.

19. Civilians of twenty-three years' standing and Colonels.
20. The Resident in Travancore outside his charge.
21. „ Director of Public Instruction.
22. „ Accountant-General.
23. „ Inspector-General of Police.
24. „ Director of Revenue Settlement and Superintendent of Revenue Survey.
25. Chief Engineers, 2nd and 3rd Classes.
26. Judges, Collectors, and President of the Madras Municipality (within their respective charges).
27. The Commissioner of Salt Revenue.

Third Class.

28. Civilians of eighteen years' standing and Lieutenant-Colonels.
29. The Private Secretary to the Governor.
30. „ Administrator-General.
31. „ Inspector-General of Jails and Registration.
32. „ Sanitary Commissioner.
33. „ Conservator of Forests.
34. „ Postmaster-General.
35. Senior Chaplains.
36. The Master Attendant.
37. „ Sheriff (within his charge).
38. „ Commissioner of Police.
39. „ Deputy Accountant-General.
40. „ Deputy Inspectors-General of Police.
41. Deputy Superintendents of Surveys, First Grade.
42. Educational Department Officers, First Grade.
43. The Examiner of Accounts, Public Works Department.
44. The First Judge, Small Cause Court.
45. „ Government Astronomer.
46. Superintending Engineers.

Fourth Class.

47. Civilians of twelve years' standing and Majors.
48. The Government Solicitor.
49. Deputy Directors of Revenue Settlements.
50. Deputy Superintendents of Surveys.
51. Educational Department Officers, 2nd Grade.
52. Executive Engineers, Public Works Department, 1st Grade.
53. The Judges of the Small Cause Court.
54. „ Presidency Magistrates.
55. „ Registrars of the High Court.
56. „ Superintendent of Stamps.
57. „ Superintendent of Telegraphs.

Remarks.—Officers included in the same number will take precedence among themselves according to the date of entry into that number. 2. An officer holding more than one position in the table is entitled to the highest position which he holds. 3. Officers officiating in any number rank in that number below permanent incumbents. 4. All ladies to take place according to the rank assigned to their respective husbands, with the exception of wives of Peers and ladies having independent rank not below that of the daughter of a Baron. Such ladies rank immediately after the wives of Members of Council. 5. Medical Officers rank as follows:—Surgeon-General with Major-General according to date of commission; Deputy Surgeon-General with Colonel; Surgeon-Major of 20 years' service with "Lieutenant-Colonel," but junior of that rank; Surgeon-Major with Major; Surgeon after six years' service with Captain; Surgeon under six years' service with Lieutenant.

APPENDIX No. LXXIX.

SALUTES FOR BRITISH INDIA TO EUROPEAN FUNCTIONARIES, TO NATIVE PRINCES, AND TO CERTAIN PERSONS; AND FOR SPECIAL OCCASIONS, OR FOR MARKING TIME.

(a.) Salutes to European Functionaries.

		Guns.
Viceroy and Governor-General of India—By the Forts and Batteries within the Indian Territories and Seas, and on being fallen in with, by, or visiting any of Her Majesty's Ships within those limits		31
Ambassadors—By Her Majesty's Forts and Batteries within the Indian Territories, and also on visiting, embarking on board of, or disembarking from any of Her Majesty's Ships within the Indian Seas.	See pages 28 and 30 (note *a*), Bengal Army Regulations	19
Governors of Presidencies. The President of the Council of India.	Do.	17
Governor-General of the Portuguese Settlements in India. Governor of Pondicherry.	By the Forts and Batteries within the Indian Territories and Seas, and by Her Majesty's Ships within those limits, each.	17
Governors of Her Majesty's Colonies—The same within jurisdiction, or when on duty elsewhere.	See pages 28 and 30 (note *b*), Bengal Army Regulations.	17
Lieutenant-Governors of Provinces in India—The same within jurisdiction, or when on duty elsewhere.	Do. ...	15
Field Marshals and Admirals of the Fleet		17
Commanders-in-Chief—According to Military rank, with two guns more than specified below, in the Scale for Rank (the same within Indian Territories and Seas).		
Commander-in-Chief of Her Majesty's Naval Forces—According to Naval rank with two guns more than specified below, in the Scale for Rank (the same within Indian Territories and Seas).		
Provincial Commander-in-Chief—According to Military rank, with two guns more than specified below, in the Scale for Rank (within his own Presidency only).		
Generals and Admirals, or their Flags—The same within Indian Territories and Seas.		15
Members of Council—Forts and Batteries and Her Majesty's Ships within their respective Presidencies.	See pages 29 and 30 (note *c*), Bengal Army Regulations.	15
Commander-in-Chief, Indian Navy—According to Naval rank, with two guns more than specified below, in the Scale for Rank (the same within Indian Territories and Seas).		
Plenipotentiaries and Envoys—The same within the precincts of the territories to which he is accredited.	See pages 29 and 30 (note *d*), Bengal Army Regulations.	15
Lieutenant-Governors of Her Majesty's Colonies—The same within jurisdiction, or when on duty elsewhere.	See pages 29 and 30 (note *b*), Bengal Army Regulations.	15
Vice-Admirals and Lieutenant-Generals, or their Flags—The same within Indian Territories and Seas.		13
Agents to the Governor-General—The same within Indian Territories and Seas, or within jurisdiction only, or when on duty elsewhere.	See pages 29 and 30 (note *b*), Bengal Army Regulations.	13
Residents ... Chief Commissioners of Provinces and Commissioners.	The same within jurisdiction or when on duty elsewhere, each. Do. ...	13
Rear-Admirals and Major-Generals, or their Flags—The same within Indian Territories and Seas.		11
Political Agents and Charges d'Affaires—Forts, Batteries, and Her Majesty's Ships within the precincts of the Territories to which he is accredited	See pages 29 and 30 (note *b*), Bengal Army Regulations.	11
Commodores of the First Class and Brigadier-Generals—The same within limits of Command. The Governor of Dew		9
Her Majesty's Ships not carrying Broad Pendant (return salute only)		7

Return salutes to foreign Men-of-War—Gun for gun, but only when such ships are saluting the national flag on arrival.

Officers inferior to Brigadier-Generals, who command Divisions of the Army, District Field Forces on or beyond the British Frontier, or Garrisons with a permanent staff, to receive in Bengal, Madras, and Bombay a salute and honors of the next superior Army rank from their own Garrison Forces, &c.

Note.—The Viceroy and Governor-General of India to have power, in cases in which he may deem it expedient to authorize salutes, to issue such local regulations for the guidance of the authorities in Indian limits with respect to Civil or Military Officers holding positions or commands not included in the above table.

		Guns.
Consuls-General ... ... The Portuguese Governor of Daman—The same within Indian Territories and Seas.		9

(b.) Salutes to Native Princes and Chiefs.

Names.	Guns.
Baroda, the Maharajah of (Guicowar)	
Hyderabad, the Nizam of	21
Mysore, the Maharajah of	
Bhopaul,* the Begum (or Nawab) of	
Cashmere, and Jummoo,* the Maharajah of	
Gwalior,* the Maharajah (Scindia) of	
Indore,* the Maharajah (Holcar) of	19
Khelaut, the Khan of	
Kohlapore, the Rajah of	
Meywar (Oodeypore), the Maharana of	
Travancore, the Maharajah of	
Bhawulpore, the Nawab of	
Bhurtpore, the Maharajah of	
Bicaneer, the Maharajah of	
Boondee, the Maharao Rajah of	
Cochin, the Rajah of	
Jeypore, the Maharajah of	
Kerowlie, the Maharajah of	17
Kotah, the Maharao of	
Cutch, the Rao of	
Marwar (Jodhpore), the Maharajah of	
Puttiala, the Maharajah of	
Reewah, the Maharajah of	
Tonk, the Nawab of	
Banswarra, the Maharawal of	
Dewas, the Senior Rajah of	
Dewas, the Junior Rajah of	
Dhar, the Rajah of	
Dholepore, the Rana of	
Doongerpore, the Maharawal of	
Datia, the Maharajah of	
Edure, the Maharajah of	
Jessulmeer, the Maharawal of	15
Jhallawar, the Maharaj Rana of	
Kheirpore, the Meer of	
Kishengurh, the Maharajah of	
Oorcha (Tehree), the Maharajah of	
Pertaubgurh, the Rajah of	
Serohi, the Rao of	
Sikkim, the Maharajah of	
Ulwur, the Maharao Rajah of	
Benares, the Maharajah of	
Cooch Behar, the Rajah of	
Jowrah, the Nawab of	13
Rampore, the Nawab of	
Tipperah, the Rajah of	
Ajeygurh, the Maharajah of	
Baonee, the Nawab of	
Bhownugger, the Thakoor Sahib of	
Bijawur, the Maharajah of	11
Cambay, the Nawab of	
Chirkaree, the Maharajah of	
Chumba, the Rajah of	

Names.	Guns.
Chutterpore, the Rajah of	
Dhrangadra, the Raj Sahib of	
Fureedcote, the Rajah of	
Jhabooa, the Rajah of	
Jheend, the Rajah of	
Joonaghur, the Nawab of	
Khyloor (Billaspore), the Rajah of	
Kuppoorthulla, the Rajah of	
Morvy, the Thakoor Sahib of	
Mundee, the Rajah of	
Nabha, the Rajah of	
Nowanugger, the Jam of	
Nursingurh, the Rajah of	11
Pahlanpore, the Diwan of	
Porebunder, the Rana of	
Punnah, the Maharajah of	
Radhunpore, the Nawab of	
Rajgurh, the Nawab of	
Rajpeepla, the Rajah of	
Rutlam, the Rajah of	
Seetamhow, the Rajah of	
Sillana, the Rajah of	
Sirmoor (Nahun), the Rajah of	
Sookeit, the Rajah of	
Sumthar, the Rajah of	
Tehree (Grwal), the Rajah of	
Alirajpore, the Rana of	
Balasinore, the Babee of	
Bansda, the Maharawal of	
Baria, the Rajah of	
Beronda, the Rajah of	
Barwauny, the Rana of	
Chota Oodeypore, the Rajah of	
Dhrol, the Thakoor Sahib of	
Dhurrumpore, the Maharana of	
Fadhli, the Sultan of	
Gondaul, the Thakoor Sahib of	
Janjirah, the Nawab of (Hubshee)	
Kharonde, the Rajah of	
Kilcheepore, the Rao of	9
Lahej, the Sultan of	
Limry, the Thakoor Sahib of	
Loonawarra, the Rana of	
Maler Kotla, the Nawab of	
Myhere, the Rajah of	
Nagode, the Rajah of	
Palitana, the Thakoor Sahib of	
Rajkot, the Thakoor Sahib of	
Sawunt Waree, the Sir Desai of	
Sonth, the Rajah of	
Sucheen, the Nawab of	
Wudwan, the Thakoor Sahib of	
Wunkaneer, the Raj Sahib of	

(c.) Personal Salutes.

Names.	Guns.
Cashmere and Jummoo.—His Highness Kunbeer Sing Bahaudur, G.C.S.I., Maharajah of.	
Dhooleep Sing.—His Highness Maharajah, G.C.S.I.	
Gwalior.—His Highness Jeajee Rao Sindia Bahaudur, G.C.B., G.C.S.I., Maharajah of.	
Indore.—His Highness Tookajee Rao Holcar Bahaudur, G.C.S.I., Maharajah of.	
Jeypore.—His Highness Sewae Ram Sing Bahaudur, G.C.S.I., Maharajah of.	21
Marwar (Jodhpore).—His Highness Jeswunt Sing Bahaudur, G.C.S.I., Maharajah of.	
Meywar (Oodeypore).—His Highness Sujjun Sing, Maharana of.	
Travancore.—His Highness Sree Rama Vurmah, G.C.S.I., Maharajah of.	
Bengal.—His Highness Munsoor Ali Khan, Nawab Nazim of.	19
Reewah.—His Highness Rughooraj Sing Bahaudur, G.C.S.I., Maharajah of.	
Bhopaul.—His Highness Nawab Alijah Ameer-ool-Moolk, Consort of Her Highness the Begum of.	
Hyderabad.—Nawab Sir Salar Jung Bahaudur, G.C.S.I. Minister of.	
Hyderabad.—Nawab Shums-oo-Oomrah Ameer-i-Kubeer Bahaudur, Minister of.	17
Kishengurh.—His Highness Pirthee Sing Bahaudur, Maharajah of.	
Oorcha (Tehree).—His Highness Mohender Pertab Sing Bahaudur, Maharajah of.	

Names.	Guns.
Bhopaul.—Her Highness the Qudsia, Begum of	
Bhownugger.—His Highness Tukht Singhjee, Thakoor Sahib of.	
Dhrangadra.—His Highness Man Singhjee, Raj Sahib of.	
Joonaghur.—His Highness Mohubbut Khan, K.C.S.I., Nawab of.	15
Nowanugger.—His Highness Sree Vibhajee, Jam of.	
Rampore.—His Highness Mahomed Kulb Ali Khan Bahaudur, G.C.S.I., Nawab of.	
Burdwan.—His Highness Maharaj Adhiraj Methab Chund Bahaudur of.	
Jheend.—His Highness Rugbeer Sing Bahaudur, G.C.S.I., Rajah of.	
Nabha.—His Highness Heera Sing Bahaudur, Rajah of.	13
Punnah.—His Highness Roodur Pertab Sing Mohender Bahaudur, K.C.S.I., Maharajah of.	
Rutlam.—His Highness Jeswunt Sing, Rajah of	
Tanjore.—Her Highness Princess Vijaya Mehemi Mukta Boyi Amonani, Rajah Sahib of.	
Maculla.—Omar bin Sallah bin Mahomed, Nukeeb of	12
Shuhur.—Awadh bin Omar Alkayatee, Jemadar of	
Banswarra.—His Highness Lutchman Sing, Maharawal of.	11
Maler Kotla.—Mahomed Ibrahim Ali Khan Bahaudur, Nawab of.	
Bulrampoor.—Maharajah Dig Bijai Sing, K.C.S.I., of.	9
Kisheem and Socotra.—Ali bin Abdoollah, Sultan of	

* These Chiefs to receive 21 guns within the limits of their own territories permanently.

(*d.*) SALUTES ON ANNIVERSARIES OR SPECIAL OCCASIONS.

Anniversaries.

	Guns.		Guns.
The Queen and Empress when present in person ...	101	—On all other occasions	31
The Queen's Birth-day	31	To be fired by all forts and batteries.	
Empress of India, assumption	31		

Special Occasions.

Births of children of the reigning Sovereign	At the Presidencies only, each	21
Victories of the British Arms		
Reading of all Proclamations		

Funeral Honours.

Minute guns to be fired at the funerals of Crowned Heads, and at the funerals of Functionaries who were entitled to salutes, the same number of Minute guns only to be fired as they were entitled to as Salutes when living.

Minute guns equal in number to the years of the deceased not to be fired on any occasion unless by special order of the Governor-General in Council.

(*e.*) TIME GUNS.

Time guns to be fired at midday and evenings will be allowed as follows :—

I. At all stations where there is a Field or Garrison Battery of Artillery.

II. At all stations where there is a force equal to two regiments, although there may be no artillery, provided the force includes not less than a wing of a British regiment.

III. Morning guns will be fired on Sundays and on such days as there may be a general assembly of the troops, the time being notified in Station Orders.

APPENDIX No. LXXX.

CHRONOLOGICAL LIST OF FAMINES FOR ALL INDIA INCLUDING THE MADRAS FAMINES.

Year.	Area of Drought.	Area of Famine or Scarcity.
1769	Drought in Bengal ..	
1770	....	Famine in Bengal.
1782	Drought in Bombay and Madras.	
1783	Drought in Upper India.	Famine in Madras and scarcity in Bombay.
1784	....	Famine in Upper India from the Karamnausa to the Sutlej.
1791	Drought in Bombay, Hyderabad, and Madras.	
1792	....	Scarcity in north part of Madras. Intense famine in Hyderabad and Southern Mahratta country. Severe famine in Deccan, Goozerat, and Marwar.
1802	Drought in South Hyderabad and in Deccan.	
1803	Drought in Ceded Province of North-Western Provinces and in Central India.	Famine in Deccan and Hyderabad.
1804	....	Famine in North-Western Provinces, and scarcity in Central India and Rajpootana.
1806	Drought in Central Districts of Madras, from Trichinopoly to Nellore.	
1807	....	Famine in Central Districts of Madras.
1812	Drought in Goozerat, Cutch, and Cuttywar and to some extent in Madras; also in Rajpootana and Central India.	
1813	....	Famine in Cutch and Cuttywar; intense in parts of Rajpootana. Scarcity in parts of North-Western Provinces and of Madras.
1823	Drought in Madras.	
1824	Drought in Bombay ..	Famine in Madras, chiefly in the north.
1825	....	Scarcity in Bombay, chiefly in Goozerat and the Northern Deccan.
1832	Drought in Northern districts of Madras, except Ganjam, in the south of Hyderabad, and the Southern Mahratta districts of Bombay.	
1833	Drought in north part of Bombay, in Rajpootana, and parts of Punjaub and North-Western Provinces.	Famine in Northern districts of Madras; intense in Goontoor. Scarcity in Hyderabad and Southern Mahratta districts.
1834	....	Scarcity in North Deccan and Goozerat, in Rajpootana, the Hissar division of Punjaub, and the trans-Jumna district of North-Western Provinces.
1837	Drought in North-Western Provinces, Eastern States of Rajpootana, and south-east part of Punjaub.	
1838	Drought in Goozerat, Cutch, and Cuttywar.	Intense famine in Central Doab and trans-Jumna districts of North-Western Provinces, and in Delhi and Hissar divisions of Punjaub.
1839	....	Scarcity in Goozerat, Cutch, and Cuttywar.
1844	Scanty rainfall in Deccan.	
1845	....	Scarcity in Deccan.
1853	Drought in Ceded districts of Madras, in South Hyderabad, and Sholapore and Kaladgy districts of Bombay.	
1854	....	Famine in Bellary. Scarcity in adjoining parts of Madras, Hyderabad, and Bombay.
1860	Drought in part of North-Western Provinces and Punjaub, and neighbouring States of Rajpootana.	
1861	....	Famine in Upper Doab of North-Western Provinces, in Delhi and Hissar divisions of Punjaub, and in adjoining parts of Rajpootana. Scarcity in Cutch.
1865	Drought in northern part of Madras in South Hyderabad and north part of Mysore; in South Mahratta districts of Bombay, in Orissa and Behar, and all Western Bengal.	
1866	....	Famine in Ganjam and Bellary districts of Madras, in Orissa (intense), and in Behar. Scarcity in all adjacent parts of Madras, Mysore, Hyderabad, and Bombay, and in Central and Western Bengal.

Year.	Area of Drought.	Area of Famine or Scarcity.	Year.	Area of Drought.	Area of Famine or Scarcity.
1868	Drought in Rajpootana, trans-Jumna districts of North-Western Provinces, north and south-east districts of Central Provinces, and in Punjaub from Jumna to Indus.		1873	Drought in North Behar and a part of North-Western Provinces and Oudh.	
1869	....	Famine in Western Rajpootana (intense), in trans-Jumna districts of Allahabad and Delhi, and Hissar Divisions of Punjaub. Scarcity in adjacent parts of North-Western Provinces and Punjaub, in Goozerat, Cutch, and North Deccan, and in the north and south-east districts of Central Provinces.	1874	....	Famine in Behar and scarcity in the strip of North-Western Provinces and Oudh adjacent.
			1876	Drought in all Madras and Deccan, Mysore and south part of Hyderabad.	
			1877	Drought in Central Provinces, North-Western Provinces and Punjab.	Famine in Madras, Mysore, Bombay, and Hyderabad.
			1878	....	Famine in North-Western Provinces and Cashmere. Scarcity in Punjaub.

APPENDIX No. LXXXI.

SCALE OF ALLOWANCES.

(a) *Civil.*

	Monthly. RS.	A.	P.
Governor	10,000	0	0
Chief Justice	5,000	0	0
Bishop	2,133	5	4
Member of Council (*a*)	5,120	0	0
Puisne Judges	3,750	0	0
Chief Secretary to Government	3,750	0	0
Under do. do.	1,050	0	0
Secretary to Government in the Revenue Department	3,125	0	0
Under Secretary to Government in the Revenue Department	1,000	0	0
Secretary to Government, P. W. Department	2,743	8	0
Joint Secretary to Government in the Irrigation Department	2,304	6	0
Secretary to Government, Military Department	2,500	0	0
Assistant Secretary to Government, Judicial and Legislative Departments	800	0	0
Private Secretary to the Governor	1,500	0	0
Accountant-General and Commissioner, Paper Currency	2,500	0	0
Deputy Accountant-General ... 1,000 to	1,250	0	0
Assistant do. ... 600 to	800	0	0
Chief Superintendent to the Accountant-General ... 400 to	600	0	0
Inspector of Local Fund Accounts (*b*) 400 to	600	0	0
Secretary to the Board of Examiners	100	0	0
Secretary to the Commissioner for the U.C.S. Examinations	350	0	0
Government Astronomer	800	0	0
Meteorological Superintendent	250	0	0
Resident of Travancore	2,800	0	0
Assistant do. (*c*)	600	0	0
Consulting Engineer for Railways	1,802	4	0
Deputy to do.	1,240	14	0
Consulting Engineer, Irrigation and Canal Company	1,000	0	0
Government Agent, Chepauk	525	0	0
Translators. Tamil, Telugu, and Persian Hindustani ... each	300	0	0
Translators. Canarese and Malayalam, each	250	0	0
Superintendent of Central Museum	300	0	0
Director of Government Cinchona Plantations, &c.	600	0	0
Archdeacon of Madras	266	10	8
Registrar of Diocese and Archdeaconry	213	5	4
Marriage Registrar for the Town of Madras	50	0	0
Senior Chaplain... (With Rs. 130 house-rent when doing duty at the Presidency.)	800	0	0
Junior do. ... (With Rs. 130 house-rent when doing duty at the Presidency.)	500	0	0
Ministers paid by Government	100	0	0
Railway Chaplains ... 100 to	150	0	0
Allowance as Senior Chaplain, Church of Scotland	150	0	0
Postmaster-General ... 1,500 to	1,750	0	0
Postmaster, Madras ... 600 to	900	0	0
Director of Public Instruction ... 2,000 to	2,250	0	0
Inspectors of Schools and Principals and Professors of Colleges and Principal of the School of Agriculture, Sydapett. 1st Class ... 1,250 to	1,500	0	0
2nd do. ... 1,000 to	1,250	0	0
3rd do. ... 750 to	1,000	0	0
4th do. ... 500 to	750	0	0
Inspectress of Girls' Schools ... 400 to	500	0	0
Assistant Professor of English and Mathematics	350	0	0
Senior Professor of Law, Presidency College.	300	0	0
Junior do. do.	250	0	0
1st Assistant Master, Rajahmundry and Combaconum College	500	0	0
Curator of Government Oriental Manuscript Library	100	0	0
Chemical Examiner and Professor of Chemistry (*d*)	850	0	0
Registrar, Madras University	300	0	0
Surgeon-General with the Government of Madras...	2,500	0	0
Secretary do. (*d*)	800	0	0
Surgeon to the Governor (*d*) (*e*)	1,000	0	0
Sanitary Commissioner	2,000	0	0
Principal, Medical College, and Physician, General Hospital	1,600	0	0
Deputy Sanitary Commissioner and Inspector of Vaccination and Full Professorships in the Medical College with conjoint Presidency duties. 1,250, 1,050, 850	700	0	0
Surgeons of four Districts, Superintendent of Lunatic Asylum and Civil Surgeons of 1st-Class Stations (*f*) 1,050, 850, 650	500	0	0
Civil Surgeons, 2nd-Class Stations... 950, 750, 550	400	0	0
Resident Surgeon, General Hospital, and Professor of Pathology, Medical College.	800	0	0
Assistant Physician, General Hospital, and Professor of Hygiene, Medical College(*d*).	700	0	0
2nd Surgeon, General Hospital, and Professor of Materia Medica and Practical Pharmacy(*d*)	700	0	0
Minor Professorships, Botany, Dental Surgery, Medical Jurisprudence, Comparative Anatomy	200	0	0
Health Officer and Superintendent of Lock Hospital	800	0	0
Uncovenanted Medical Officers in charge of Civil Stations ... 700, 550, 450	350	0	0
Native Assistant Surgeons (*g*) ...100, 150	200	0	0
Veterinary Lecturer (*h*)	600	0	0
Principal, Normal School	600	0	0
Do. Civil Engineering College	600	0	0
Superintendent, School of Arts (*h*)	500	0	0
District Engineer ... ... 600 and	700	0	0
1st Assistant Engineer	300	0	0
2nd do. do.	150	0	0
Inspector-General of Registration	1,500	0	0
Registrar of Assurances, Madras	500	0	0

(*a*) Free of the deduction of 4 per cent. on account of annuity.

(*b*) Besides a local allowance of Rupees 150.

(*c*) A Covenanted Civilian who has passed the Higher Standard Examination draws besides a special allowance of Rupees 175.

(*d*) Besides Presidency house-rent of rank.

(*e*) While in Madras.

(*f*) Civil Surgeons who were in the service on the 7th November 1864 draw Rupees 1,056-9-7 on completing 20 years' service and Rupees 1,093-2-0 on 25 years' service, for both 1st and 2nd class stations.

(*g*) Draws also local allowance of Rupees 50.

(*h*) Gets house-rent of Rupees 50.

(a) *Civil*—(Continued).

	Monthly. RS.	A.	P.
District Registrars. 1st and 2nd Grades. 500...	300	0	0
District Registrars. 3rd and 4th do. 250...	200	0	0
District Registrars. 5th and 6th do. 175...	150	0	0
District Registrars. 7th Grade	100	0	0
Registrar of High Court, Appellate Side ...	1,600	0	0
Deputy do. do. ...	700	0	0
Advocate-General (a)	2,187	8	0
Solicitor	1,225	0	0
Administrator-General	300	0	0
Government Pleader	500	0	0
Registrar, High Court, Original Side ...	1,500	0	0
1st Assistant do. do. ...	500	0	0
2nd do. do. do. ...	325	0	0
Law Reporter, High Court	400	0	0
Sheriff	898	0	0
Clerk of the Crown and Crown Prosecutor.	800	0	0
Judge's Clerk and Commissioner	550	0	0
Coroner (b)	350	0	0
1st Judge, Court of Small Causes, Madras .	2,000	0	0
2nd and 3rd do. do. do. ...	1,000	0	0
Registrar of do. do. do. ...	500	0	0
Head Clerk (c) do. do. do. ...	300	0	0
Inspector-General of Madras Police ...	2,500	0	0
Assistant to do. do.	900	0	0
Deputy Inspector-General	1,200	0	0
Superintendent of Police, 1st, 2nd, and 3rd Classes ... 700, 800, and	1,000	0	0
Assistant do. (d) ... ... 600 and	500	0	0
Inspector-General of Jails	1,833	5	4
Superintendent of Central Jails. 1st Class for Medical Officers 700 to	950	0	0
Superintendent of Central Jails. Do. for Non-Medical Officers. 600 to	850	0	0
Superintendent of Central Jails. 2nd Class for Medical Officers 550 to	700	0	0
Superintendent of Central Jails. Do. for Non-Medical Officers. 450 to	600	0	0
Allowance to Medical Officers for the Medical Charge of Central Jails	100	0	0
Allowance to Medical Officers for charge of District Jails, 1st Class.	150	0	0
Do. do. 2nd do.	100	0	0
Do. do. 3rd do.	75	0	0
Do. do. 4th do.	50	0	0
Superintendent of Prisons, Madras (e) ...	600	9	0
Commissioner of Police, Madras	1,500	0	0
Deputy do.	750	0	0
Assistant do. ... ... 350 to	400	0	0
Magistrate of Police, Madras. 800, 1,000 and	1,200	0	0
Cantonment Magistrate	700	0	0
District and Session Judge	2,333	5	4
Subordinate Judges, 1st, 2nd, and 3rd Grades (f) 800, 650	500	0	0
District Moonsifs, 1st, 2nd, 3rd, and 4th Classes ... ... 400, 300, 250 and	200	0	0
First Member, Board of Revenue	4,000	0	0
Second Member, do.	3,408	5	4
Third do. do.	3,016	10	8
Secretary do.	2,000	0	0
Sub-Secretary do.	1,500	0	0
Deputy Collector of Sea Customs	500	0	0
Deputy Collectors, 1st, 2nd, 3rd, 4th, 5th, and 6th Classes (g) 700, 600, 500, 400, 300 and	250	0	0
Curator of Government Books and Registrar of Books (h)	200	0	0
Director of Revenue Settlement (i) ...	2,333	5	4
Deputy do. 1st and 2nd Grades ... 1,100 and	750	0	0
Assistant do. ... 425 to	550	0	0
Commissioner of Salt Revenue (j) 2,000 to	2,500	0	0
Deputy Commissioner of Salt Revenue. 1,200 to	1,400	0	0

	Monthly. RS.	A.	P.
Personal Assistant to the Commissioner of Salt Revenue	500	0	0
Assistant Commissioner of Salt Revenue, 1st Grade.	800	0	0
Do. do. 2nd do.	700	0	0
Do. do. 3rd do.	600	0	0
Do. do. 4th do.	500	0	0
Inspectors of Salt Revenue, 1st, 2nd, 3rd, and 4th Grades ... 400, 350, 300 and	250	0	0
Probationers Do. ...	200	0	0
Civil.	Military.		
Superintendent, Revenue Survey ... 1,500	1,800	0	0
Dy. do. do. 1st Class... 1,100	1,400	0	0
Dy. do. do. 2nd do.... 750	1,200	0	0
Assistant do. do. 1st do. ... 550	900	0	0
Do. do. do. 2nd do. ... 425	600	0	0
Superintendent of Stamps and Stationery.	1,000	0	0
Senior Conservator of Forests (k) 1,250 to	1,590	0	0
Junior do. (k) 1,000 to	1,250	0	0
Deputy do. 1st, 2nd, 3rd, and 4th Classes (l) ... 900, 800, 650, and	550	0	0
Assistant do. 1st, 2nd, and 3rd Classes (m) ... ... 450, 350, and	250	0	0
Collector and Agent of Ganjam or Vizagapatam (n)	2,500	0	0
Do. do. of Tanjore (o) ...	2,500	0	0
Collector of Godavery (n)	2,333	5	4
Collectors (o)	2,333	5	4
Collector, Neilgherries (n)	2,000	0	0
Sub-Collector (o)	1,166	10	8
Principal Assistant Collectors (n) ...	1,166	10	8
Head Assistant Collectors (p)	768	5	4
Special Assistant Collector, Malabar (p) ...	786	5	4
Do. Ganjam, Vizagapatam, and Godavery (o)	768	5	4
Senior Assistant Collectors (q)	768	5	4
Assistant Collectors (Passed) (r)	560	0	0
Assistant Collectors (Unpassed) (r) ...	385	0	0
Probationers Assistant Collectors (Natives) (r)	200	0	0
Do. on passing 1st Standard (r).	250	0	0
Do. on confirmation 64 per cent. of the pay of Covenanted Civilians (r).	358	6	5
Master Attendant and Registrar of Shipping, Madras	1,500	0	0
Deputy Master Attendant, Superintendent, Mercantile Marine Office, Marine Storekeeper, and Conservator of the Port ...	700	0	0
First Assistant Master Attendant, &c. ...	650	0	0
Second Assistant Master Attendant, Surveyor of Shipping to Government, and Government Emigration Surveyor ...	350	0	0
Assistant Superintendent, Government Farms, Sydapett (s) ... ...500 to	700	0	0
Superintendent of Auxiliary Medical School	200	0	0
Deputy Collector in charge of Paper Currency, Calicut.	100	0	0
Do. License Tax Establishment, Madras	125	0	0
Port Officer and Superintendent, Pearl Banks, Tuticorin	500	0	0
Port Officers. Cochin, Cocanada and Calicut, each	350	0	0
Port Officers. Paumben	385	0	0
Port Officers. Mangalore	370	0	0
Port Officers. Negapatam, Gopaulpore, Bimlipatam, Masulipatam and Vizagapatam	300	0	0
Protector of Emigrants	100	0	0
Consular Agent, Pondicherry	250	0	0
Do. Caricaul	200	0	0
Medical Inspector of Emigrants	200	0	0

(a) Gets office allowance of Rupees 115.
(b) Gets conveyance allowance of Rupees 80.
(c) The pay will be reduced to Rupees 200 on the occurrence of vacancy.
(d) The Assistant Superintendent at Balligooda draws Rupees 600.
(e) With house-rent of Rupees 125.
(f) Mr. M. Cross draws do. 1,400 a month.
(g) Deputy Collectors on General duties draw a tentage allowance of Rupees 11-1-9 a month.
(h) Present incumbent draws office allowance Rupees 65 and commission at 7½ per cent. on the sale of books.
(i) With fixed tentage of Rupees 87-8-0. The present incumbent draws a personal allowance of Rupees 416-10-8.

(j) With a fixed travelling allowance of Rupees 250.
(k) Do. do. of do. 200.
(l) Do. do. of do. 150.
(l) Do. do. of do. 150 & 25.
(m) Do. do. of do. 120.
(n) With fixed travelling allowance and fixed tentage of Rupees 170 and 50.
(o) With fixed travelling allowance and fixed tentage of Rupees 150 and 50.
(p) Do. do. of do. 100 and 25.
(q) Do. do. of do. 225 and 25.
(r) Do. do. of do. 100 and 11-1-9.
(s) With house-rent of Rupees 35.

(b) *Military Staff.*

Appointment.	Staff Salary. RS.	A.	P.	Remarks.
Commander-in-Chief, and Personal Staff.				
Commander-in-Chief ...	5,500	0	0	Inclusive of pay, house-rent, and all other allowances.
Military Secretary	1,000	0	0	Consolidated.
Aide-de-Camp	250	0	0	With Staff Corps pay of rank.
Native Aide-de-Camp ...	150	0	0	With pay of rank.
NOTE.—The Aide-de-Camp who performs the duties of Interpreter receives an additional Allowance of Rupees 130.				
Adjutant-General's Department.				
Adjutant-General	2,200	0	0	Consolidated.
Deputy Adjutant-General ...	800	0	0	With Staff Corps pay of rank.
Assistant Adjutant-General (a)	600	0	0	
Assistant Adjutant-General, Royal Artillery.	500	0	0	With Regimental pay of rank.
Assistant Adjutant-General for Musketry.	500	0	0	With Staff Corps pay of rank.
Deputy Assistant Adjutant-General for Musketry.	300	0	0	
Quartermaster-General's Department.				
Quartermaster-General ...	2,200	0	0	Consolidated.
Deputy Quartermaster-General.	800	0	0	With Staff Corps pay of rank.
Judge Advocate-General's Department.				
Judge Advocate-General ...	2,000	0	0	Consolidated.
Divisional Staff.				
General Officer Commanding Division.	3,500	0	0	Consolidated.
Aide-de-Camp to do.	250	0	0	With Staff Corps pay of rank.
Assistant Adjutant-General of Division.	500	0	0	
Assistant Quartermaster-General of Division.	500	0	0	
Deputy Assistant Quartermaster-General of Division	400	0	0	
Deputy Judge Advocate of Division.	500	0	0	
Brigadier-General, 1st Class.	1,400	0	0	
Do. 2nd Class.	1,200	0	0	
Deputy Assistants Adjutant-General of Districts.	400	0	0	
Ordnance Department.				
Inspector-General of Ordnance.	2,200	0	0	Consolidated.
Deputy do. do.	600	0	0	With Regimental pay of rank.*
Commissary of Ordnance, 1st Class.	500	0	0	
Do. 2nd Class.	400	0	0	
Do. 3rd Class.	250	0	0	
Superintendent, Gun Powder Factory.	600	0	0	
Superintendent, Gun Carriage Factory.	600	0	0	
Assistant Superintendent ...	150 0 0 to 200	0	0	
Warrant Grades, Ordnance and Commissariat Departments.				
Deputy Commissary ...	500	0	0	Total pay and allowances.
Assistant Commissary ...	375	0	0	
Deputy Assistant Commissary	300	0	0	
Conductors	160	0	0	
Sub-Conductors	125	0	0	

Appointment.	Staff Salary. RS.	A.	P.	Remarks.
Brigade Staff.				
Commissariat Department.				
Commissary-General ...	2,200	0	0	Consolidated.
Deputy Commissary-General.	900	0	0	With Staff Corps, pay of rank.
Assistant Commissary-Genl., 1st Class.	800	0	0	
Do. 2nd Class.	600	0	0	
Deputy Assistant Commissary-General, 1st Class.	500	0	0	
Deputy Assistant Commissary-General, 2nd Class.	400	0	0	
Sub-Assistant Commissary-General, 1st Class.	300	0	0	
Sub-Assistant Commissary-General, 2nd Class.	200	0	0	
Sub-Assistant Commissary-General, 3rd Class.	150	0	0	
Superintendent of Army Signalling and Telegraphy.	250	0	0	With Staff Corps or Regimental pay of rank.
Garrison Instructor	400	0	0	
Military Account Department.				
Senior Controller of Military Accounts.	2,500	0	0	Consolidated salary.
Controller of Military Accounts.	2,200	0	0	
Military Accountant, 1st Class, 1st Grade.	1,000	0	0	With Staff Corps pay of rank.
Military Accountant, 1st Class, 2nd Grade.	800	0	0	
Military Accountant, 2nd Class, 1st Grade.	600	0	0	
Military Accountant, 2nd Class, 2nd Grade.	500	0	0	
Military Accountant, 3rd Class.	300	0	0	
Assistant Military Accountants on Rupees 100 a month and after passing the final Examination Rupees 150 and when at a Presidency town Rupees 200 a month.				
Examiner, Medical Accounts	400	0	0	With unemployed pay of rank, and Rupees 150 per mensem for the Military Fund Office.
Superintendent of Army Clothing.	700	0	0	With Staff Corps pay of rank.
Station Staff Officers.				
Station Staff Officer, 1st Class, (including all charges).	150	0	0	With Regimental or Staff Corps pay of rank.
Station Staff Officer, 2nd Class	100	0	0	
Do. 3rd Class	50	0	0	
Do. 4th Class	25	0	0	
Native Cavalry Regiments.				
Commandant	700	0	0	With Staff Corps pay of rank.
2nd in Command	300	0	0	
2nd Squadron Commander ...	210	0	0	
3rd do. ...	180	0	0	
Squadron Officer and Adjutant.	250	0	0	
1st Squadron Officer ...	150	0	0	
2nd do. ...	150	0	0	
Governor's Body Guard Commandant.	200	0	0	

NOTE.—All Cavalry Officers to maintain two chargers, except the Commandant, who is to maintain three.

The 2nd in Command and Squadron Commanders draw also Rupees 30 per mensem each for payment of their respective Squadrons.

The Adjutant also draws Rupees 50 Office allowance.

The Squadron Officer who performs any duties that may be assigned to him such as would devolve upon a Quartermaster, &c., draws also Rupees 30 per mensem for Writer and Stationery

(a) With Army Head-quarters.

* If holding the rank of Major, Royal Artillery, restricted to Staff Corps pay.

(b) *Military Staff*—(Continued).

Appointment.	Staff Salary. Rs.	A.	P.	Remarks.
Native Infantry Regiments.				
Commandant	600	0	0	With Staff Corps pay of rank.
2nd in Command	270	0	0	
Wing Commander	230	0	0	
Wing Officer and Adjutant ...	200	0	0	
Wing Officer and Quarter-master.	150	0	0	
1st Wing Officer	100	0	0	
2nd do.	100	0	0	
NOTE.—All Infantry Officers to maintain one charger. The 2nd in Command and Wing Commander each draw also Rupees 85 per mensem or Rupees 21-4-0 per Company for the payment and repair of Arms of Companies of their respective Wings. The Adjutant also draws Rupees 50 Office allowance.				
Medical Department.				
Deputy Surgeon-General ...	1,800	0	0	Consolidated.
Secy. to Surgeon-General—				
Surgeon-Major, above 20 years' service.	1,400	0	0	Consolidated.
Surgeon-Major, under 20 years' service.	1,200	0	0	
Surgeon, above 5 years' service.	1,000	0	0	
Surgeon, under 5 years' service.	850	0	0	
Surgeon-Major above 20 years' service, in charge of a Native Regiment.	1,000	0	0	With Rupees 90 Horse allowance in Cavalry Regiment.
Surgeon-Major, under 20 years' service, in charge of a Native Regiment.	800	0	0	
Surgeon, above 5 years' service, in charge of a Native Regiment.	600	0	0	With Rupees 60 Horse allowance in Cavalry Regiment.
Surgeon, under 5 years' service, in charge of a Native Regiment.	450	0	0	
Appointed *before* 7th November 1864—				
Surg.-Mjr. (25 yrs.' service)	1,093	2	0	
Do. (20 do.)	1,056	9	7	
Do. (15 do.)	825	11	5	
Do. (12 do.)	789	3	0	
Surgeon (10 do.)	451	14	5	
Do. (6 do.)	433	10	2	
Do. (5 do.)	335	12	2	
Do. (under 5 years' service).	317	8	0	
Appointed *after* 7th November 1864—				
Surg.-Mjr. (25 yrs.' service)	888	12	0	
Do. (20 do.)	852	3	7	
Do. (15 do.)	677	6	11	
Do. (12 do.)	640	14	6	
Surgeon (10 do.)	410	9	5	
Do. (6 do.)	392	5	2	
Do. (5 do.)	304	14	2	
Do. (under 5 years' service).	286	10	0	

Appointment.	Staff Salary. Rs.	A.	P.	Remarks.
Staff Corps Pay.				
General Officers	1,295	5	0	
Brevet-Colonel and Lieutenant-Colonel.	827	14	0	
Major	640	14	0	
Captain	374	1	6	
Lieutenant	225	12	0	
British Cavalry.				
Lieutenant-Colonel	1,157	0	0	Total Indian pay and allowances, including Horse allowance.
Major	929	6	4	
Captain	563	0	4	
Lieutenant (above 3 years).	365	4	0	
Do. (under 3 years).	310	10	4	
Horse Artillery.				
Colonel	1,488	7	0	Total Indian pay and allowances, including Horse allowance.
Lieutenant-Colonel	1,157	0	0	
Major (*c*)	899	6	4	
Captain	533	0	4	
Lieutenant (after 3 years' service in the rank).	365	4	0	
Lieutenant (under 3 years' service).	310	10	4	
Field Artillery.				
Colonel (*b*)	1,295	5	0	Total Indian pay and allowances, including Horse allowance.
Lieutenant-Colonel (*b*) ...	1,032	4	0	
Major (*c*) (*f*)	819	3	0	
Captain	477	7	8	
Lieutenant (after 3 years' service in the rank).	295	12	0	
Lieutenant (under 3 years' service).	243	5	0	
Royal Engineers.				
Colonel (*a*)	1,265	5	0	Total Indian pay and allowances.
Lieutenant-Colonel (*a*) ...	1,002	4	0	
Major (*a*) (*f*)	759	3	0	
Captain	433	10	0	
Lieutenant (after 3 years' service in that rank).	265	12	0	
Lieutenant (under 3 years' service in that rank).	213	5	0	
British Infantry.				
Lieutenant-Colonel (*b*) ...	1,032	4	0	Total Indian pay and allowances.
Major (*b*)	789	3	0	
Captain	415	6	0	
Lieutenant (above 3 years)...	256	10	0	
Do. (under 3 years)...	202	12	5	
Presidency House Rent.				
Brevet-Colonel and Lieutenant-Colonel.	125	0	0	
Major	100	0	0	
Captain	75	0	0	
Lieutenant	40	0	0	

(*a*) With Horse allowance, Rupees 30, when Regimentally employed and not in receipt of Staff salary.
(*b*) Including Horse allowance, Rupees 30. An allowance for two horses (Rupees 60) is made to Colonels and Lieutenant-Colonels of Royal Artillery when in independent command.
(*c*) Includes Rupees 50 Battery Command allowance.
(*f*) When in receipt of Staff Salaries draw Rupees 640-14-0 per mensem.

APPENDIX No. LXXXII.

LIST OF SUBJECTS TAKEN IN THE SEVERAL SECRETARIAT DEPARTMENTS OF GOVERNMENT.

Marine Department.

Casualties.
Certificates of registry.
Cyclones.
Dues.
Fairways.
Harbours.
Lighthouses.
Lights.
Marine Acts and Bills.
Marine Indexes and Charts.
Marine statistics.
Marine stores.
Marine surveys.
Master Attendant, Madras.
Notices to mariners.
Packing accounts.
Piers, quays and jetties.
Pier toll bills.
Port fund expenditure provided for in annual budget, or which can be met from savings.
Port officers.
Port trust.
Port works.
Quarantine.
Seamen.
Signal Codes.
Travelling allowance and other financial questions falling under existing rules.
Vessels.

Ecclesiastical Department.

Archdeacon of Madras.
Baptisms.
Bishop of Madras.
Burials.
Cemeteries.
Chaplains of all churches.
Churches and chapels.
Church funds.
Church furniture.
Ecclesiastical returns.
Marriage certificates.
Marriage licenses.
Marriage registrars.
Registrar of the Diocese.
Vicar Apostolic.
Visitations.
Wesleyan ministers.

Political Department.

Bunganapully (non-revenue) questions.
Boundaries where native or foreign states are concerned.
Carnatic pensioners.
Chepauk Agency.
Cochin questions.
Consuls.
French Government.
Hyderabad questions.
Insignia.
Candian pensioners.
Kurnool pensioners.
Mysore questions.
Native states and chiefs.
Nayar Brigade.
Palcondah ex-Zemindar.
Passports.
Political officers.
Political pensioners.
Political returns.
Precedence.
Prince of Arcot.
Poodoocottah questions.
Salutes.
Sundoor questions.
Tanjore Raj.
Travancore questions.
Vellore (Mysore) pensioners.

Educational Department.

Asylums.
Civil Engineering College.
Educational books.
Educational officers.
Educational returns.
Examinations.
Gilchrist scholarship.
Grants-in-aid.
Lawrence Asylum.
Madras University.
Medical College.
Orphanages.
Presidency College.
Registration of books.
Schools and colleges.

Public Department.

Administration Report.
Archæology.
Astronomy.
Board of Examiners.
Books and publications.
Central Museum, Madras.
Changes of name.
Chemical Examiner.
Civil Service and Servants.
Contagious Diseases Act.
Copyright.
Dispensaries.
Earthquakes.
Emigration.
Examination of Civilian Assistants.
Examinations in Oriental languages.
Fairs and festivals.
Gazettes.
Gazetteers.
Hospitals.
Insolvents.
Inventions.
Lungherkhana or Mussalman poor-house.
Medical department.
Medical officers.
Members of Council.
Meteorology.
Native press.
Naturalization.
Newspapers.
Observatories.
Passports for pilgrims.
Patents.
Presses.
Private Secretary to the Governor.
Public health.
Public offices.
Public service.
Sanitation.
Sanscrit Manuscripts.
Telegraph Department.
Treasure trove.
Unanswered References.
Vaccination.
Vagrancy.
Vital statistics.
Workhouses.

Judicial Department.

Acts.
Administrator-General.
Agency tracts.
Appeals.
Arms and ammunition.
Assessors.
Batta to prosecutors and witnesses.
Bench Magistrates.
Bills.
Convicts.
Coroner of Madras.
Courts.
Dead-houses.
Elephants.
Evidence powers.
Estates.
Extradition.
Factories.
Gaols.
Government Pleader.
Government Solicitor.
High Court.
Herautees and Lumbaudies.
Infanticide.
Interpretation fees.
Joint Stock Companies.
Judicial circulars.
Judicial publications.
Jurors.
Justices of the Peace.
Letters of administration.
Lotteries.
Lunatics.
Magisterial powers.
Magistrates.
Notaries Public.
Offences against Coinage Act.
Pauper travellers.
Petroleum Act.
Pleaders.
Police.
Police circulars.
Post-mortem examinations.
Probates.
Process fees.
Prosecutions.
Cauzees.
Reformatories.
Registration.
Releases of convicts.
Religious processions.
Rewards.
Secret service.
Special Magistrates.
State prisoners and detenus.
Suits (non-revenue).
Sulphur licenses.
Unclaimed property.
Witnesses.

Financial Department.

Accountant-General.
Allowances.
Audits.
Banks.
Budget estimates.
Civil fund.
Coinage.
Currency.
Exemption from the 25 years' rules.
Famine expenditure.
Financial circulars and codes.
Financial rulings.
Grants in excess of provision in departmental budgets.
Interpretations of financial codes and rulings.
Loans.
Local funds under Act IV of 1871.
Municipal questions.
Permanent advances.
Port fund expenditure not provided for in the budget.
Postal matters.
Savings' banks.
Stationery.
Stores.
Travelling allowance code questions requiring an interpretation of the rules or a reference to the Government of India.
University fee fund.

Revenue Department.

Abkarry.
Agriculture.
Allowances admissible under rules.
Appointments (certain).
Arts and manufactures.
Books and publications for officers under the Revenue Department.
Botanical Department.
Cattle-disease.
Census.
Cinchona plantations.
Compensation for lands.
Court of Wards.
Customs.
District Gazettes.
District Manuals.
District Post.
District Press.
Escheats.
Exhibitions.
Famine.
Ferries.
Fisheries.
Forests.
Horticulture.
Inams.
Irrigation—Minor.
Jagheers.
Khelauts.
Land Revenue.
License Tax.
Mineralogy and mines.
Opium.
Pearl Fishery.
Pensions other than Political, Military and Superannuation.
Petitions.
Pounds.
Process Service Fees (Revenue).
Public Works (Revenue).
Quinology.
Religious and charitable endowments and institutions under Regulation VII of 1817.
Salt.
Season.
Sericulture.
Settlement.
Special Funds.
Stamps.
Suits (Revenue Department).
Survey.
Title-deeds (Revenue).
Trade and trade statistics.
Weights and measures.
Zemindarries.

Pension Department.

Pensions under the Civil Pension Code.

Military Department.

Account Department.
Accounts.
Advances.
Agricultural.
Appointments.
Armaments.
Arms.
Army List.
Artillery.
Asylums.
Barrack Department.
Books.
Camps.
Cantonments.
Casualties.
Clothing.
Commands.
Commissariat Department.
Communications.
Complaints.
Correspondence.
Defences.
Discipline.
Distribution of Army.
Discharges.
Disturbances.
Drill and Instruction.
Ecclesiastical.
Educational.
Engineers.
Enquiries.
Equipment.
Establishments.
Estates.
Estimates.
Field Operations.
Funds.
Furlough.
Guards.
Honorary Distinctions.
Horses.
Inspections.
Intelligence.
Judicial.
Leave.
Maps.
Medals.
Medical Department.
Military Buildings.
Military Department.
Miscellaneous.
Native Languages.
Ordnance Department.
Organization.
Pay and Allowances.
Pensions.
Prisoners.
Prize.
Promotions.
Quarters.
Recruiting.
Regimental institutions.
Reports.
Retirements.
Returns.
Rewards.
Salutes.
Sanitary.
Savings' Bank.
Schools.
Service.
Special.

Military Department—(Continued).

Staff College.
Staff Corps.
Stores.
Survey Department.
Survey Parties.
Transport.
Unattached List.
Veterinary Department.
Volunteer Corps.
Warrant Officers.
Women and Children.
Working Parties.

Public Works Department.

Accommodation for travellers.
Army buildings.
Bridges.
Dykes.
Ecclesiastical Department buildings.
Educational Department buildings.
Embankment and conservancy of rivers.
Establishment employed on general duties.
General questions.
General Department buildings.
Guaranteed Railways.
Harbour Improvements.
Improvement of Towns.
Judicial Department buildings.
Light houses.
Manufactures.
Marine Department buildings.
Mines.
Navigable canals other than those connected with systems of irrigation.
Post office buildings.
Provincial and Imperial Irrigation Works.
Revenue Department buildings.
River Improvements.
Roads.
State Railways.
Tanks.
Telegraph Department buildings.

APPENDIX No. LXXXIII.

GOVERNMENT OF INDIA SCHEME OF ASSIGNMENTS FOR PROVINCIAL SERVICES, FOR ALL PROVINCES, NOW IN FORCE.

(For explanation of this scheme, see foot-notes to the article on Revenue and Finance. With regard to the side numbers, it should be observed that the revenue and expenditure of the empire are classified under thirty-six and fifty-two heads respectively, each head being distinguished by a name and number; the numbers in the case of revenue heads are Roman figures, and those of expenditure heads are Arabic figures.)

Revenues.	Imperial.	Provincial.
I.—Land Revenue.	The whole except as entered in the Provincial column.	In Burmah, fisheries; in the North-Western Provinces and Oudh, collections from the Terai, Bhabar and Dudhi Estates, rents of water mills and stone quarries; and in Bombay, rents of resumed service lands and service commutations. In all provinces, a fixed percentage on the Imperial Land Revenue to cover the difference between the Provincial Revenue and the Provincial Expenditure.
II.—Tribute ...	The whole ...	*Nil.*
III.—Forest ...	Half	Half.
IV.—Excise ...	Ditto	Ditto.
V.—Assessed Taxes.	Ditto	Ditto.
VI.—Provincial Rates.	*Nil*	The whole.
VII.—Customs ...	All except as entered in the Provincial column.	All items other than customs duties; and, in Burmah only, the same percentage on the export duties as on the land revenue.
VIII.—Salt ...	Ditto ...	All items other than duty on salt and sale of salt; and, in Burmah only, the same percentage on the salt revenue as on the land revenue.
IX.—Opium ...	The whole ...	*Nil.*
X.—Stamps ...	Half	Half.
XI.—Registration.	Ditto	Ditto.
XIII.—Post Office.	*Nil*	The whole.
XIV.—Minor Departments.	*Nil*	Ditto.
XVI.—Law and Justice.	Ditto	Ditto.
XVII.—Police ...	Ditto	Ditto.
XVIII.—Marine ...	As at present...	As at present.
XIX.—Education...	*Nil*	The whole.
XX.—Medical ...	Ditto	Ditto.
XXI.—Stationery and Printing.	Ditto	Ditto.

Expenditure.	Imperial.	Provincial.
1.—Interest ...	The whole except as entered in the Provincial column.	Interest on local debenture loans. $4\frac{1}{2}$ per cent. on the capital cost to the commencement of the year, and $2\frac{1}{4}$ per cent. on the capital cost during the year, of all Public Works, whether classified as Productive Public Works or not, of which capital and revenue accounts are kept; excepting always any portion of their cost supplied from Provincial Revenues or by Local Debenture Loans. The rate of interest on the cost of Protective Public Works will be the subject of special agreement.
2.—Interest on Service Funds and other Accounts.	The whole	*Nil.*
3.—Refunds and Drawbacks.	Of the Imperial share of the revenues.	Of the Provincial share of the revenues.
4.—Land Revenue.	The same percentage on charges for collection of land revenue and on the cost of surveys (including expenditure hitherto charged in the accounts of the Central Government) and settlements, elsewhere than in Bombay and Madras, as is retained of land revenue.	The remainder.
5.—Forest ...	Half	Half.
6.—Excise ...	Ditto	Ditto.
7.—Assessed Taxes.	Ditto	Ditto.
8.—Provincial Rates.	*Nil*	The whole.
9.—Customs ...	Ditto	Ditto.
10.—Salt	In Madras the whole. Elsewhere the purchase and manufacture of salt; and in Bengal the cost of preventive lines and operations; in Bombay charges connected with the administration of salt revenue in Portuguese India.	The remainder.
11.—Opium ...	The whole	*Nil.*
12.—Stamps ...	Half	Half.
13.—Registration ...	Ditto	Ditto.

Revenues.		
	Imperial.	Provincial.
X XII.—Interest ...	All except as entered in Provincial column.	Interest on Government Securities (Provincial).
X XIII.—Pensions ...	Book transfers from the Military and Medical Funds and subscriptions to these funds.	The remainder.
XXIV.—Miscellaneous.	Gain by exchange on Imperial Transactions, Premia on Bills, Unclaimed Bills of Exchange, and extraordinary unclassified items exceeding Rs. 10,000.	Ditto.
XXV.—Railways...	As at present ...	Whatever is now Provincial in each Province.
XXVI.—Irrigation and Navigation.	Ditto ...	Ditto.
XVII.—Other Public Works.	Receipts from Military works.	The remainder.
XXXI.—Gain by Exchange on Transactions with London.	The whole ...	*Nil.*

Expenditure.		
	Imperial.	Provincial.
15.—Post Office ...	*Nil*	The whole.
16.—Telegraph ...	Ditto	Ditto.
17.—Administration.	Account and Currency Offices, Reserve Treasuries and Allowances to Presidency Banks.	The remainder.
18.—Minor Departments.	Archæological and Meteorological Departments, Censuses, Gazetteers and Statistical Memoirs.	Ditto.
19.—Law and Justice	*Nil*	The whole.
20.—Police ...	Frontier Police in Punjaub and Assam; and Police employed on Imperial State Railways and on Salt preventive duties.	The remainder.
21.—Marine ...	Whatever is now Imperial.	What is now Provincial in each Province.
22.—Education ...	*Nil*	The whole.
23.—Ecclesiastical...	The whole	*Nil.*
24.—Medical ...	*Nil*	The whole.
25.—Stationery and Printing.	Stationery purchased for Central Stores.	The remainder, including cost of stationery obtained from the Central Stores.
26.—Political ...	The whole	*Nil.*
27.—Allowances and Assignments.	The whole except as in the Provincial column.	In Bombay, items now Provincial, except half the charges for compensations for abolition of Abkarry rights.
28.—Civil Furlough and Absentee Allowances.	The whole	*Nil.*
29.—Superannuations	Items not provided for in the Provincial column.	All pensions and gratuities, except pensions payable from the Military and Medical Funds, brought to account in India; each Government being responsible for the pensions and gratuities which it now pays, or hereafter grants or recommends, however earned and wherever paid.
30.—Miscellaneous...	Remittance of treasure, discount on Supply Bills and extraordinary unclassified items exceeding Rs. 10,000.	The remainder.
31.—Famine Relief.	See paragraph 7 of Resolution No. 3353, dated 30th September 1881.	See paragraph 7 of Resolution, No. 3353, dated 30th September 1881.
32.—Railways ...	As at present ...	Whatever is now Provincial.
33.—Irrigation ...	Ditto ...	Ditto.
34.—Other Public Works.	Military Public Works, and, except in British Burmah, Offices of the Supreme Government; Works in the Salt, Opium, Post Office, Imperial, Telegraph and Ecclesiastical Departments, and on Mints and Currency Offices; and the Bengal Surveyor-General's Offices.	The remainder.
38.—Loss by Exchange.	The whole	*Nil.*

APPENDIX No. LXXXIV.

FUNDS AND SERVICES CONTROLLED BY THE MADRAS GOVERNMENT.

(*For explanation of the control see the article on Revenue and Finance. With regard to the side-numbers, it should be observed that the revenue and expenditure of the empire are classified under thirty-six and fifty-two heads respectively, each head being distinguished by a name and number; the numbers in the case of revenue heads are Roman figures, and those of expenditure heads are Arabic figures. The receipts and charges of Local Funds are shown in the Imperial accounts in lump and are not classified*).

(a) Funds.

Heads of revenue.	Actuals of 1883-84.	Description of receipts.
Imperial.	RS.	
XI. Tributes from Native States.	34,46,430	Tribute from Travancore; peshcush and subsidy from Cochin, Travancore, and Mysore. Fees on successions to native states.
XIV. Mint	60	Sale-proceeds of old stores and materials belonging to the late mint.
XXVII. Irrigation and Navigation (Productive Public Works).	1,53,857	Direct revenue from the several delta and anicut systems, canals, and Dowlaishweram workshops.
XXXII. Military Works (P.W.D.).	35,173	Recoveries of rents on public buildings, sale-proceeds of old buildings and building materials.
XXXIV. Army (Military Department).	20,92,224	Recoveries on account of hutting money, &c.; sale-proceeds of horses, &c., from the Remount depôts; recoveries on account of Commissariat, Barrack, Clothing, Ordnance and other supplies.
XXXVI. Credits on account of Exchange.	1,86,736	Difference between the official rate of exchange and the rate of 2*s*. the rupee on all receipts in India on account of payments already made or to be made in England.
Imperial and Provincial combined.		
I. Land Revenue ..	I. 3,36,27,742 P. 1,37,86,249 4,74,13,991	Collections on account of settled demand, comprising peshcush (permanent assessment) on zemindarry lands, jagheers (fiefs), mootas (estates corresponding to zemindarries), and polliems (properly life grants in return for military services)—ryotwarry settlements—and quit-rent on shrotriem villages (assigned at favourable rates in reward for past services or on religious tenures), and inam entire villages (held on tenures originally rent free but now subject to payment of quit-rent); sale-proceeds of waste land; receipts on account of redemption of land-tax; pearl-fishery receipts; rent on grants; lands cultivated but not included in jummahbundies (yearly closing of the land-tax accounts); grazing-tax; water-tax on zemindarry and inam lands; quit-rent; process-servers' fees, &c.
III. Salt	I. 1,38,16,788 P. 38,337 1,38,55,125	*Imperial.*—Customs and excise duties on salt; sale-proceeds of Government salt. *Provincial.*—Rents of warehouses; fees and cesses; fines and forfeitures; and miscellaneous receipts.
IV. Stamps	I. 28,12,431 P. 28,12,431 56,24,862	Sale-proceeds of one-anna stamps for receipts and cheques; bills of exchange; other general stamps and court-fee stamps; sale of stamp papers for copies of judicial documents; duty on impressing documents; fines and penalties; miscellaneous receipts.
V. Excise	I. 33,05,992 P. 33,05,992 66,11,984	License and distillery fees; duties for sale of liquors and drugs; sale-proceeds of excise opium and gain on such sale-proceeds; fines, confiscations, and miscellaneous receipts.
VII. Customs	I. 11,18,103 P. 40,495 11,58,598	*Imperial.*—Sea customs (export duty on rice and paddy, and import duty on arms, ammunition, military stores, liquors, opium not covered by a pass, and salt); land customs (transit and frontier duties levied on cordons round Yanam, Pondicherry, Caricaul, and Mahé). *Provincial.*—Warehouse and wharf rents, and miscellaneous receipts.

(a) FUNDS—(*Continued*).

Heads of revenue.		Actuals of 1883-84.	Description of receipts.
		RS.	
VIII. Assessed Taxes ..	I.	2,33,138	License-tax.
	P.	2,33,137	
		4,66,275	
X. Registration ..	I.	3,16,034	Fees for registering documents; fees for copies of registered documents; and miscellaneous receipts.
	P.	3,16,033	
		6,32,067	
XXI. Interest	I.	6,34,656	*Imperial.*—Interest on advances made to service funds; on loans to municipalities and other public bodies; on loans to native states or private persons; and on arrears of revenue; miscellaneous receipts.
	P.	3,294	*Provincial.*—Interest on Government securities.
		6,37,950	
XXII. Receipts in aid of superannuation, retired or compassionate allowances.	I.	3,69,395	*Imperial.*—Subscriptions to the (late) military and medical retiring funds.
	P.	23,279	*Provincial.*—Subscriptions under the Indian civil service family pension regulations; contributions for pensions and gratuities, and miscellaneous receipts.
		3,92,674	
XXIV. Miscellaneous ..	I.	14,512	*Imperial.*—Premium on bills; unclaimed bills of exchange of more than three years' standing.
	P.	78,970	*Provincial.*—Unclaimed deposits; treasure-trove; sale-proceeds of durbar presents and of old stores and materials; fees for Government audit; miscellaneous fees, fines and forfeitures; miscellaneous cash recoveries of service payments; other miscellaneous receipts.
		93,482	
XXXI. Irrigation and Navigation (*not classed as Productive*).	I.	24,294	*Imperial.*—Agricultural and other works in charge of P.W. officers.
	P.	55,683	*Provincial.*—Receipts from the Madras water-supply and irrigation extension project and Buckingham canal tolls.
		79,977	
Provincial.			
IX. Forest		9,51,778	Sale-proceeds of timber, firewood and charcoal, bamboos, sandalwood, grass, and other products removed by Government and by private agency; confiscated drift and waif wood; fines, refunds, and other miscellaneous sources.
XII. Post Office		3	District post collections.
XV. Law and Justice ..		5,80,652	Sale-proceeds of unclaimed and escheated property; court fees realised in cash; general fees, fines, and forfeitures; jail manufactures; receipts from convict labor; pleadership examination fees; fees from Notaries Public, and miscellaneous receipts.
XVI. Police		1,04,647	Hire of police by railways, municipalities, cantonments and towns, and by departments; cash receipts under Arms Act; other fees and fines, superannuation receipts, &c.
XVII. Marine		5,446	Pilotage receipts.
XVIII. Education		2,12,573	Fees from Government colleges and schools; contributions; sale-proceeds of books; and miscellaneous receipts.
XIX. Medical		1,08,166	Medical college fees; hospital and lunatic asylum receipts; proceeds of medicines sold by Civil Surgeons; contributions from municipalities and miscellaneous receipts.
XX. Scientific and other minor departments.		1,46,172	Model farm and botanical and other garden receipts; Government bull and stallion receipts; cinchona plantations; examination and emigration fees.
XXIII. Stationery and Printing.		72,877	Stationery receipts; sale-proceeds of gazettes and other publications; press receipts.
XXXIII. Civil Buildings, Roads and Services.		1,46,012	Rents for Government buildings; sale-proceeds of buildings, old materials, tools and plant; receipts from self-supporting workshops; tolls on roads, and fines, refund and miscellaneous receipts; cemetery receipts; rent of policemen's huts; &c.
Unfettered Funds (being funds incorporated in the general accounts, and practically at the unfettered disposal of the Government for expenditure in any part of the Presidency).			
Pound Fund		1,90,993	XVI. *Police.*—Fines paid on strayed cattle; sale-proceeds of unclaimed cattle.
Agricultural Services		46,795	XX. *Scientific, &c., Departments.*—Receipts from the Sydapett experimental farms; and a contribution of half the surplus of each year from pound funds.

(a) FUNDS—(*Continued*).

Heads of revenue.	Actuals of 1883-84.	Description of receipts.
	RS.	
Local Fettered Funds (being funds incorporated in the general accounts, but not at the unfettered disposal of the Government for expenditure in any part of the Presidency).		
Local Funds (Act IV of 1871) ..	58,16,582	These funds comprise (*a*) land-cess, (*b*) house-tax, (*c*) tolls. The first (*a*) is the cess of not more than one anna in the rupee on the annual rent-value of all occupied land held on any tenure. The second (*b*) is the rate not exceeding five rupees, leviable on houses within unions where Local Fund schools are established. This tax has not been levied since 1873. The third (*c*) are levied on carriages, carts, and animals passing along roads within the circle. These receipts are credited to *I. Land Revenue* and *VI. Provincial Rates*; there are also other minor receipts under XVIII. Education from school-fees, sale-proceeds of books, &c.; XIX. Medical, being income from endowments, &c.; XXXI. Miscellaneous choultry, market and bungalow rents; XXXIII. Civil buildings, roads and services from Public Works, tolls, &c.; and under adjusting heads being contributions from Provincial and other Local Funds.
Canal and Ferry Fund	1,62,038	XXXIII. *Civil Buildings, &c.*—Derived from tolls and license-fees levied under Act I of 1870 on canals, lines of navigation, and ferries in three districts—Godavery, Kistna and Tanjore.
Village Service Fund	33,84,861	I. *Land Revenue and VI. Provincial Rates.*—Comprised of proceeds of village service inams placed under attachment; the ancient fees (mirass) paid by ryots for village services; the cess levied under Act IV of 1864 in lieu of such fees; and the quit-rent imposed on enfranchised village service inams in Godavery, Kurnool and Trichinopoly. XXI. Interest on endowments in Government securities and XXIV. Miscellaneous sundry receipts.
Irrigation Cess Fund	42,754	VI. *Provincial Rates.*—A cess, regarded as voluntary, but in practice compulsory in some talooks, paid by ryots holding lands in certain districts (Trichinopoly, Madura and Coimbatore) in lieu of customary labor and XXXIII. Public Works receipts.
Bearer's Fee Fund	100	XXIV. *Miscellaneous.*—Consists of small fees collected in the Godavery district from persons for whom dáks are laid by Government officers; intended to cover petty contingent charges connected with laying dáks. The fund was closed from 1st April 1884.
Road Fund, Bhadrachellam and Rekapully talooks.	5,060	VI. *Provincial Rates.*—Derived from a cess of 2 per cent. levied on the land revenue and is expended in making roads. These talooks were transferred to the Madras Presidency from the Central Provinces in the year 1874.
Police Lodging Fund	23,251	XVI. *Police.*—Formed of deductions made from pay of the police force on account of their lodgings. This fund however has merged with Provincial from 1884-85.
Book Depôt Fund	61,024	XVIII. *Education.*—Sale-proceeds of English and vernacular text-books; elementary school-books and maps. This fund has also merged with Provincial from 1884-85.
Excluded Funds (being funds not incorporated in the general accounts).		
Municipal Funds	14,04,445	Rates and taxes, leviable under the Towns Improvement Act of 1871, on houses, buildings, lands, arts, professions, trades, callings, carriages, horses and other animals; fees on registration of carts; tolls on carriages, carts, and animals entering municipal limits.
Cantonment Fund	13,678	Consists of funds levied under section 19 of Act I of 1866 from pound collections and sale-proceeds of grass and other produce within cantonments.
Port and Marine Fund	4,44,376	Dues levied under section 45 of the Indian Ports Act XII of 1875; salvage money, and sale-proceeds of waifs; dockyard services and supplies to departments and private persons; sale-proceeds of vessels and stores; registration fees, fines and other miscellaneous receipts.
Educational Building Fund ..	49,582	Surplus pagoda funds, to which private subscriptions for building schools are added. It has been since wound up.
University Fee Fund	97,175	Fees for degrees conferred by the Madras University, and admission fees, imposed from time to time, under section 15 of Act XXVII of 1857.
Endowment Fund	13,336	Is comprised of old endowments and grants made for the support of hospitals, dispensaries, alms-houses and like charitable (non-religious) institutions for the use of the people. The Munro chuttram and dispensary in Anantapore, the Kurnool tope, four chuttrams in Tinnevelly and another on the Neilgherries are maintained from this fund, which has however been made over to Local Fund Boards and Municipalities from 1st April 1884.

(b) SERVICES.

Heads of expenditure.	Actuals of 1883-84.	Description of expenditure.
Imperial.	RS.	
1. Interest on Ordinary Debt..	6,930	Interest and commission on Government of India stock notes.
2. Interest on Deposits ..	7,54,994	Interest on treasury notes in favor of service funds; on civil funds; on apothecaries' fund; on presidency savings bank deposits; on soldiers' deposits in savings bank; on railway funds; on deposits of Administrator-General; on land-revenue collections refunded; on miscellaneous accounts and refunds.
4. Assignments and Compensations.	11,64,526	Assignments to inamdars and other grantees; pensions in lieu of resumed lands; compensations (general and salt) to French Government under convention of 1815; to Travancore and Cochin on account of customs revenue; to Audy Rajah Beeby for the Amindivy island; payment to French Government at Pondicherry on account of arrack farm in the Masulipatam 'loge'; and other miscellaneous payments.
7. Salt	16,06,586	Salaries of Commissioner, Deputy and Assistant Commissioners, of clerks, servants and boat establishment; contingent charges, such as rents, rates, taxes, rewards; travelling allowances; postage charges, petty works of construction and repair; purchase of salt and manufacturers' share; freight on imported salt; cost of conveyance and storing; cost and repair of salt machines; cost of export of salt and gathering of spontaneous salt; miscellaneous charges.
23. Ecclesiastical	3,42,221	Salaries of Bishop, Archdeacon, Chaplains, Chaplains of Church of Scotland, registrar, marriage registrar, organist, verger, servants and cemetery establishment; Bishop's visitation allowance; house-rent and travelling allowances of Chaplains.
25. Political	2,10,348	Salaries of the Residents and Assistant Residents in Travancore 'cum' Cochin, and in Mysore; of Chepauk Agent and Assistant Agent; of Residency Surgeons; allowances to Officer in charge of Bangalore treasury; pay of clerks, servants, and treasury establishment; durbar presents; charges on account of State prisoners, and Tippoo Hyder's Mahauls.
27. Territorial and Political Pensions.	10,63,556	Tanjore, Vellore and Carnatic pensions; pension of Masulipatam Nawab; marriage and funeral allowances; commutation of political pensions; guards of honour to two Carnatic Begums; charitable and other allowances.
28. Civil Furlough and Absentee Allowances.	1,483	Leave allowances of officers lent to foreign states, &c.
34. Famine Relief and Insurance Protective Works—Irrigation	1,78,600	Expenditure on the Rooshcoolya and other minor projects, and the cost of establishments, tools and plant.
37. Guaranteed Railways—(State outlay).	99,179	State charges for land and control, being the costs of lands taken up and establishments employed in connection with guaranteed railways.
38. Irrigation and Navigation Revenue account.	9,03,579	Expenses for working and maintenance of Productive Public Works.
40. State Railways (not classed as productive) Capital account	10,626	Expenditure on the South Indian Railway extension from Tinnevelly to Quilon.
45. Military works (P.W.D.) ..	5,90,180	Accommodation for troops (fortifications, barracks, military rest-houses, &c.) ordnance works; commissariat buildings; general cantonment buildings and roads.
47. Army (Military services) ..	2,64,88,630	Cost of army, garrison, and administrative staff; regimental pay and allowances; Commissariat, Remount, Clothing, Barrack, Medical, Ordnance and other establishments; miscellaneous services, rewards, pensions, gratuities, &c.
49. Exchange on transactions with London.	23,67,820	Difference between the official rate of exchange and the conventional rate of 2*s.* the rupee on all payments made in India on account of receipts in England.
51. Irrigation and Navigation capital account.	14,68,867	Net capital outlay in India on Productive Public Works.
Imperial and Provincial combined.		
3. Refunds and drawbacks ..	I. 3,38,912 P. 1,77,596	Repayments of revenue erroneously collected under land revenue stamps and other heads; drawbacks (being portion of customs revenue due by law to exporters or importers for re-exportation or re-importation).
	5,16,508	
8. Stamps	I. 77,602 P. 77,602	Salaries of Superintendent, clerks and servants; one-fifth freight on stores from Europe; rents, rates, taxes; other contingent charges; establishment for sale of general stamps; discount on sale of stamps; charges on sale of court-fee stamps; miscellaneous charges.
	1,55,204	
9. Excise	I. 99,734 P. 99,734	Pay of Excise Superintendent and Assistant Superintendent; of Inspectors, Accountants and servants; law charges; cost of manufacture and purchase of liquor; miscellaneous contingencies; rents, rates, and taxes. (Additional pay of the Commissioner of Abkarry Revenue and his office establishment from 1884-85).
	1,99,468	
12. Assessed taxes ..	I. 3,399 P. 3,400	Collection of license-tax.
	6,799	
14. Registration	I. 2,41,316 P. 2,41,316	Salaries of Inspector-General, Registrars and Sub-registrars; payment of commission; pay of registration and joint stock establishments; travelling allowances, office and house-rent, rates, taxes; postage; miscellaneous charges.
	4,82,632	

(b) SERVICES—(*Continued*).

Heads of expenditure.		Actuals of 1883-84.	Description of expenditure.
		RS.	
18. General Administration	I.	3,03,594	*Imperial.*—Civil office of audit and account; currency department; reserve treasury; allowance to Presidency banks.
	P.	10,07,355	*Provincial.*—Salaries of the Governor and Civilian Members of Executive Council; of the Governor's Private Secretary and his office; expenses connected with the Governor's band; expenditure from contract allowance, including tour expenses of the Governor and his staff; salaries of Chief, Revenue, and Military Department Secretaries and their establishments; expenses of annual move to the hills; salaries of Board of Revenue and establishments.
		13,10,949	
20. Police	I.	68,227	*Imperial.*—Customs preventive establishment and police salt guards.
	P.	36,45,371	*Provincial.*—Inspector-General of Police; Police officers and subordinates, at the Presidency town and in the districts; village police; marine police.
		37,13,598	
21. Marine	I.	3,049	*Imperial.*—Establishment of steamer "Margaret Northcote."
	P.	8,168	*Provincial.*—Cost of dredging Paumben channel; charges on account of the second Assistant Master Attendant and his establishment; contingencies.
		11,217	
26. Scientific and other minor departments.	I.	19,550	*Imperial.*—Archæological department and Sanscrit manuscripts; gazetteers and statistical memoirs.
	P.	3,26,834	*Provincial.*—Madras Museum and Observatory establishment; Cinchona establishment; donations to scientific societies; Government farms; public exhibitions and fairs; Government bull and stallion charges; botanical gardens; Government parks; census charges; emigration establishments; registration of river-borne traffic; Provincial statistics; examinations and refunds.
		3,46,384	
29. Superannuation allowances and pensions.	I.	9,77,031	*Imperial.*—Donations to service funds; pensions of the military and medical retiring funds.
	P.	8,61,750	*Provincial.*—Superannuation and retired allowances; compassionate allowances; gratuities; Covenanted civil service pensions; bonus to Public Works officers and refunds.
		18,38,781	
30. Stationery and Printing	I.	2,71,478	*Imperial.*—Stationery purchased for central stores.
	P.	8,51,246	*Provincial.*—Stationery office; Government and collectorate presses; cost of printing at private presses; cost of stationery supplied from central stores; refunds.
		11,22,724	
31. Miscellaneous ..	I.	19,576	*Imperial.*—Charges for remittance of treasure; refunds.
	P.	2,58,019	*Provincial.*—Rewards for proficiency in Oriental languages; cost of books and publications; donations for charitable purposes; charges on account of European vagrants; rewards for destruction of wild animals; cost of establishments for stamping weights and measures and of storekeeper of machinery; conservancy establishments; special commissions of inquiry; allowances to civil servants out of employ; travelling allowances to officers attending examinations; unforeseen charges; refunds.
		2,77,595	
33. Famine Relief and Insurance Protective Works, Railways.	I.	13,01,428	*Imperial.*—Expenditure on the Bellary-Kistna, Cuddapah-Nellore, and Vizagapatam-Ryepore Railway surveys.
	P.	11,720	*Provincial.*—Expenditure on the Vellore-Villoopooram and Beypore-Calicut (Coimbatore) Railways.
		13,13,148	
44. Irrigation and Navigation (not classed as Productive.)	I.	21,93,424	*Imperial.*—Agricultural works and cost of Palaur and Peroondoray anicut systems and the Chembrambaukum tank, cost of Minor Irrigation works.
	P.	3,33,244	*Provincial.*—Expenditure on extending and maintaining the Buckingham canal, and on the Madras water-supply and irrigation extension project.
		25,26,668	
46. Civil Buildings, Roads and Services.	I.	2,54,558	*Imperial.*—Outlay on buildings and other works connected with the postal, telegraph and salt departments, establishments, tools and plant, &c.
	P.	24,42,625	*Provincial.*—Outlay on other public works, original and repair carried out by the P.W.D. and by civil officers; cost of Public Works Secretariat, accounts and executive establishments.
		26,97,183	
Provincial.			
5. Land Revenue		45,73,306	Collectors, Sub-assistant, and Deputy Collectors and establishments; Tahsildars and establishments; temporary and medical establishments; rents, rates and taxes; office and miscellaneous expenses; travelling and tentage allowances (the foregoing items are charged four-fifths to Land Revenue and one-fifth to Law and Justice); one-fifth charges of the Special Assistant Agents, their establishments, &c., in the hill tracts of Ganjam and Vizagapatam; cost of land; charges for remittance of treasure within districts; law charges; charges for serving revenue processes; charges on account of fishery collections; Revenue Survey and Revenue Settlement establishments with contingent travelling and postage charges; Inam Commissioner.

(b) SERVICES—(*Continued*).

Heads of expenditure.	Actuals of 1883-84.	Description of expenditure.
	RS.	
11. Customs	1,65,000	Land and sea customs salaries, establishments and contingencies at Madras and other ports.
13. Forest	7,96,752	Cost of conservancy and works, namely, timber and other produce removed from the forests by Government agency and by consumers or purchasers; confiscated drift and waif wood; rent of leased forests and payments to shareholders in forests managed by Government; cost of live and dead stock; cost of demarcating, improving, extending, and protecting forests from fires; salaries and allowances of establishments; contingencies.
15. Post Office	1,06,807	Cost of district post establishments.
19. Law and Justice	46,64,408	Salaries of High Court Judges and Registrars, of Advocate-General, Government Solicitor, Government Pleader, Coroner, Administrator-General, and Justices of the Peace, and of their establishments; charges for mofussil witnesses attending the High Court; rents, rates, taxes, and other contingent charges; salaries of District and Sessions Judges, Subordinate Judges and Moonsifs and their establishments; cost of process service establishment; allowances to witnesses at the district, &c., courts, and contingent charges; salaries of Judges of the Small Cause Court, and their establishments; of Special Assistant Agents, Jeypore and Ganjam; (one-fifth of which is debited to 4. Land Revenue); of Cantonment Magistrates; of Subordinate Magistrates, Ganjam; of Special Magistrates; contingent criminal court charges; one-fifth of salaries of Collectors, Magistrates and others shown under Land Revenue; salaries of Inspector-General of Jails, his subordinates, and their establishments; allowances to Jail Superintendents; rations, clothing and bedding, and miscellaneous district jail charges; diet money to lock-up prisoners; cost of raw materials and new machinery; commission to gaolers; charges for transporting convicts; refunds.
22. Education	11,41,658	Salaries of Director of Public Instruction and Inspecting Educational Officers and their establishments; of Principals, Professors, Masters, and Mistresses, in Government colleges, high, middle, primary, normal, art, and ordnance artificers' schools; cost of Civil Engineering College; Agricultural College; scholarships; prizes; grants for encouragement of learning; cost of Government book depôt; grants-in-aid; payments by results; preparation and editing of books; gymnasia; Library of Oriental Manuscripts; translators; refunds; miscellaneous.
24. Medical	10,85,672	Salaries of Surgeon-General with the Government of Madras; of Surgeons-Major, Surgeons, Honorary and Native Surgeons, apothecaries, hospital assistants, and their establishments; cost of Sanitary Commissioner's and Vaccine Department; cost of Medical College Professors and establishment; Medical College scholarships and stipends; salary of Lunatic Asylum Superintendent, apothecaries, &c.; of Health Officer and of lock hospital apothecary, with connected establishments; salary of Chemical Examiner, establishment and contingent charges; refunds.
32. Famine relief	32,662	Public works or other expenditure incurred for relieving famine or distress; fire, flood and epidemic charges.
Unfettered Local Funds.		
Pound Fund	2,01,677	20. *Police.*—Pay of pound-keepers; 46. Civil buildings, &c., expenses of constructing and maintaining pounds, or of other purposes connected with the execution of the Act; the balance is applied to constructing and maintaining roads and bridges, and to other purposes of public utility. Half of the surplus remaining at the end of each year is credited to agricultural services and the other half to municipal and local funds.
Agricultural Services	94,316	26. *Scientific and other Minor Departments.*—Charges in connection with the Sydapett Experimental and Model farms.
Fettered Local Funds.		
Local Funds (Act IV of 1871) ..	58,99,253	46. *Civil buildings, &c.*—Construction, repair and maintenance of roads and communications; 22. Education, construction and repair of school-houses; maintenance of schools; cost of inspecting schools and training teachers; 24. Medical, construction, repair of, and charges connected with hospitals, dispensaries, lunatic asylums, choultries, markets, tanks and wells; cost of training vaccinators and medical practitioners; expenses connected with the sanitary inspection of towns and villages subject to the Act; 31. Miscellaneous, with the cleansing of roads, streets, and tanks; and other works of public utility, health, or comfort. 4. Land Revenue and 18. Administration, cost of Local Fund establishments in Collector's offices, Board of Revenue, &c.
Canal and Ferry Fund	1,65,322	31. *Miscellaneous.*—Salaries payable, and expenses and claims for compensation under the Act; 46. Civil buildings, &c., cost of constructing, improving, repairing, and extending channels and ferries subject to its provisions.
Village Service Fund	31,60,236	4. *Land Revenue.*—Pay of village servants.

(b) SERVICES—(*Continued*).

Heads of expenditure.	Actuals of 1883-84.	Description of expenditure.
	RS.	
Irrigation Cess Fund	41,277	4. *Land Revenue and* 46. *Public Works.*—Repairing and maintaining the channels in connection with which the cess is paid in Caroor, Coimbatore, Suttimungalam, Peroondoray and Pulladam talooks, and in Salem and Trichinopoly.
Road Fund, Bhadrachellam and Rekapully talooks.	2,502	31. *Miscellaneous.*—Constructing and repairing roads in the two talooks in question which were handed over to Madras by the Central Provinces administration in 1874, and now form part of the Godavery district.
Police Lodging Fund	24,650	20. *Police.*—Constructing and repairing police lines. This fund merges with Provincial from 1884-85.
Book Depôt Fund	58,777	22. *Education.*—Expenditure connected with the Central book depôt. This also merges with Provincial from 1884-85.
Excluded Local Funds.		
Cantonment Fund	12,548	Public improvements within the limits of the cantonment.
Port and Marine Funds	3,69,026	Pay and allowances of persons on establishment of port; cost of buoys, beacons, lights and all other works for benefit of vessels when in, approaching, or leaving the port, or the rivers or channels leading to the port.
Educational Building Fund ..	55,406	Educational buildings. The fund has been since wound up.
University Fee Fund	93,103	Expenses of Madras University.
Endowment Fund	22,427	Maintaining the charitable houses already named in the description of the Endowment Fund receipts. This fund has also been abolished.
Municipal Funds	14,13,819	Municipal expenditure on buildings, sanitary improvements, roads, communications, &c., on education, sanitation, vaccination, conservancy, lighting, markets, &c., with the cost of establishments.

APPENDIX No. LXXXV.

CATALOGUE OF THE PUBLICATION ENTITLED "SELECTIONS FROM THE RECORDS" PRINTED IN DIFFERENT YEARS IN BOOK FORM.

NOTE.—*The books are available for distribution from the Secretariat, unless out of print. Those priced are for sale to the public at the Government Press, Fort St. George.*

OLD SERIES.

1854.

1. Report on the Navigation of the Godavery.
2. Report on the Government Central Museum.
3. Report on the Proposed Abolition of the Madras Mint (Reprinted).
4. Report on the Paumben Channel (Reprinted).
5. Collective Memorandum of Public Works in the Madras Presidency (Reprinted).
6. General Report of the Road Department (Reprinted).
7. Report on the Swinging Festival and Walking through Fire.
8. Report on the Proposed Plan for the Revenue Assessment of Kurnool in 1843 (Reprinted).
9. Report on the Important Public Works for 1851.
10. Do. do. do. for 1852.

1855.

1. Report on Vaccination for 1853.
2. Memorandum of Proceedings of the Madras Government in the Department of Education.
3. Report on the Navigation of the Godavery (Reprinted).
4. Major Maitland's School for the Instruction of the Artificers and Pupils at the Gun Carriage Manufactory.
5. Report on the Anamullay Forests (Reprinted).
6. Correspondence relative to Proposals for organizing Permanent Corps of Coolies for employment on Road Works.
7. Report on Civil Dispensaries (Reprinted).
8. Report on District Roads (Reprinted).
9. Revenue Survey (Reprinted).
10. Operations of the Indian Mints (Reprinted).
11. Lieutenant O'Connell's Report on the Supply of Madras with Water and the Improvement of the Drainage and Sewerage of Black Town.
12. Reduction on the Revenue Assessment on North Arcot (Reprinted).
13. General Report of the Road Department for 1854-55.
14. Report on the Medical Topography of the South-Western Political Districts.
15. Reports on Important Public Works for 1853 (Reprinted).
16. Memorandum on Salt.
17. Report on Public Instruction in the Madras Presidency for 1854-55.
18. Report of the Railway Department for 1854.
19. Report on the Ports and Harbours of the Northern Circars, &c.
20. Report on Vaccination for 1854.
21. Report on Civil Dispensaries for 1854.
22. Papers relating to the Revision of the Land Revenue Assessment in South Arcot.

1856.

23. Reports on the Fibres of Southern India. Price Rs. 3.
24. Reports on the Disturbances in Parlakimedy, Vizagapatam, and Goomsoor in 1832-36, in 2 Volumes. Price Rs. 5. (Vol. 2 available for distribution).
25. Reports on Important Public Works for 1854.
26. Papers relating to the Establishment of Village Vernacular Schools in the Sub-division of Rajahmundry.
27. Papers relating to the Budget of 1854-55.
28. Do. do. do. of 1855-56.
29. Replies to the Collective Memorandum on Public Works in the Madras Presidency.
30. Report on District Roads for 1854.
31. Papers relating to the Commutation Rates of the Madras Presidency.
32. Report of a Committee on a plan for cleansing the Drains of Black Town.

32*a*. Report of Agricultural Exhibitions in the Provinces for 1855.

33. Report on Vaccination for 1855.
34. Report on Civil Dispensaries for 1855.
35. Report on Public Instruction in the Madras Presidency for 1855-56.
36. Report of the Madras Medical College, Session 1855-56.
37. Correspondence on the Scale of Passenger Fares and Goods Tariff for the Madras Railway, Parts I and II.

1857.

38. Papers relating to the Budget of 1856-57.
39. Report on the Government Central Museum for 1855-56.
40. Report of the Railway Department for 1855.
41. Reports on Grants-in-aid of Schools unconnected with Government.
42. Report on Vaccination for 1856.
43. Correspondence on the Scale of Passenger Fares and Goods Tariff for the Madras Railway, Vol. II.
44. Report of the Railway Department for 1856.

1858.

45. Report of Agricultural Exhibitions in the Provinces for 1856.
46. Report on Civil Dispensaries for 1856.
47. Report on District Roads for 1855-56.
48. Report of the Medical College, Session 1856-57.

49*a*. Collection of Decrees illustrating the Mutual Rights of Landholders and Tenants in Malabar.

49. Report on Public Instruction in the Madras Presidency, 1856-57.
50. Report of Agricultural Exhibitions in the Provinces for 1857.
51. Report on Vaccination for 1857.
52. Revised Rules respecting Applications for Grants-in-aid of Schools unconnected with Government.
53. Papers relating to the General Revenue Survey of the Madras Presidency.

53*a*. Report of the Railway Department for 1857.

54. Papers relating to the Budget of 1857-58.
55. Report on Civil Dispensaries for 1857.

1859.

56. Report on Public Instruction in the Madras Presidency for 1857-58.
57. Report of the Madras Medical College, Session for 1857-58.
58. Report of the Madras Medical College, Session for 1858-59.
59. Administration Report of the Madras Public Works Department.

1860.

61. Administration Report of the Madras Public Works Department for 1858-59.
62. Report on Civil Dispensaries for 1858.
63. Report on Public Instruction in the Madras Presidency for 1858-59.
64. Report of Agricultural Exhibitions in the Provinces for 1859.
65. Report on Vaccination for 1858.
66. Report of the Madras Medical College, Session for 1859-60.
67. Report on Vaccination for 1859.
68. Report on Civil Dispensaries for 1 859.

1861.

69. Report on Public Instruction in the Madras Presidency for 1859-60.
    Do. do. do. for 1860-61.
    Do. do. do. for 1861-62.
70. Administration Report of the Madras Public Works Department for 1859-60.

1862.

69*a*. Report of the Madras Medical College, Session for 1860-61.
70*a*. Report on Civil Dispensaries for 1860.
71. Report of the Madras Medical College, Session for 1861-62.
72. Report on Civil Dispensaries for 1861.
73. Report on Vaccination for 1860-61.

1863.

74. Papers relating to the General Revenue Survey of the Madras Presidency.
73. Report on Civil Dispensaries for 1862.
74. Report on Vaccination for 1862.
75. Report of the Madras Medical College, Session for 1862-63.
76. Report on Public Instruction for 1862-63.

1864.

77. Report on Civil Dispensaries for 1863.
78. Report on Vaccination for 1863-64.
79. Report of the Madras Medical College, Session for 1863-64.
80. Report on Public Instruction for 1863-64.
81. A Collection and Précis of Papers about Jeypore. Price Rs. 1-8-0.

1865.

82. Papers relating to Grants-in-aid for 1864.
83. Papers and Correspondence concerning the Lawrence Asylum, Ootacamund.
83*a*. Papers relating to the System of Uncovenanted Civil Service Examinations in the Madras Presidency.
84. Report on Vaccination for 1864.
85. Report on Civil Hospitals and Dispensaries for 1864.
86. Report on Medical College for 1864.

1866.

87. Report on Public Instruction in the Madras Presidency for 1864-65.
    Report on Vaccination for 1865.
    Report on Public Instruction in the Madras Presidency for 1865-66.

NEW SERIES.

1867.

1. Report on Medical College, Session 1865-66.
2. Report on Civil Hospitals and Dispensaries for 1865.
3. Report on Vaccination for 1866.
4. Report on the Madras Medical College, Session 1866-67.
5. Report on Public Instruction in the Madras Presidency for 1866-67.
6. Report on Civil Hospitals and Dispensaries for 1866.

1868.

7. Report relating to the Uncovenanted Civil Service Examinations held in 1865-66 and 1866-67.
8.
9. Report on Vaccination for 1867.
10. Report of the Madras Medical College, Session 1867-68.
11. Report on Public Instruction in the Madras Presidency for the official year 1867-68.

1869.

12. Annual Report on the Civil Hospitals and Dispensaries for 1867.
13. Papers relating to the Uncovenanted Civil Service Examinations held in 1867-68.
13*a*. Report and orders of the Madras Government regarding the adoption of the dry-earth system of conservancy in Barracks, Hospitals, Prisons, &c.
14. Papers relating to the Survey and Settlement of the Chidambaram and Munnargoody Talooks of the South Arcot District.
14*a*. Memorandum on native latrines.
15. Report on Public Instruction in the Madras Presidency for the official year 1868-69.
15*a*. Further report and orders of the Madras Government upon the dry-earth system of sewage in the Madras Presidency.
16. Report of the Madras Medical College, Session 1868-69.
17. Papers relating to the Uncovenanted Civil Service Examinations held in 1868-69.
18. Report on Civil Dispensaries, Session 1868-69.
19. Report on Vaccination for 1868.

1870.

20. Report of the Madras Medical College, Session 1869-70.
21. Report on Vaccination for 1869.
22. Papers relating to the Survey and Settlement of the Western Delta Talooks of the Godavery District.

1871.

23. Report on Public Instruction in the Madras Presidency for the official year 1869-70.
24. Report of the Civil Hospitals and Dispensaries, Session 1869-70.
25. Papers relating to the Uncovenanted Civil Service Examinations held in 1869-70 and 1870-71.
26. Report of the Madras Medical College, Session 1870-71.

1872.

27. Report on Vaccination for 1870-71.
28. Report on Public Instruction in the Madras Presidency for the official year 1870-71.
29. Report on the Civil Hospitals and Dispensaries for 1870.
30. Annual Report of the Madras Medical College for Session 1871-72.

1873.

31. Report of the Madras Medical College for the Session 1872-73.
32. Papers relating to the Survey and Settlement of the Central and Eastern Deltas and the Upper Talooks of the Godavery District.
33. Report on Vaccination for 1871-72.
34. Report on Civil Dispensaries for 1871.
35. Report on Public Instruction for 1871-72.
36. Report on Vaccination for 1872-73.

1874.

37. Report on Civil Dispensaries for 1872.
38. Report on Public Instruction for 1872-73.
39. Report on Lunatic Asylums for 1873-74.
40. Report on Vaccination for 1873-74.
41. Report on Public Instruction for 1873-74.
42. Report of the Madras Medical College for Session 1873-74.
43. Report on the Lock Hospitals for 1873.
44. Report of the Committee for the Revision of English, Teloogoo, and Tamil School Books in the Madras Presidency.

1875.

45. Annual Report of the Civil Dispensaries for the calendar year 1873-74.
46. Annual Report on the Lock Hospitals of the Madras Presidency for the year 1874.
47. Annual Report of the Madras Medical College, Session 1874-75.
48. Report on Vaccination for 1874-75.

1876.

49. Annual Report of the three Lunatic Asylums in the Madras Presidency during the year 1874-75.
50. Papers relating to the Survey and Settlement of the Trichinopoly District. Price Rs. 6.
51. Report on Public Instruction in the Madras Presidency for 1874-75.
52. Report on the Treatment of Leprosy with Gurjun Oil and other Remedies in Hospitals of the Madras Presidency. Price Annas 8.
53. Annual Report of the Madras Medical College, Session 1875-76. Price Annas 12.
54. Annual Report on the Lock Hospitals of the Madras Presidency for the year 1875.
55. Report on Vaccination throughout the Presidency and Provinces of Madras for the year 1875-76.
56. Annual Report of the three Lunatic Asylums in the Madras Presidency during the year 1875-76. Price Annas 8.
57. Annual Report of the Civil Dispensaries for the official year 1874-75. Price Rs. 1-4-0.

1877.

58. Report on Public Instruction in the Madras Presidency for the year 1875-76. Price Rs. 2.
59. Report on Civil Dispensaries for 1875-76.
60. Lunatic Asylum Report for 1876-77. Price Annas 8.
61. Report on Lock Hospitals for 1876.
62. Annual Report of the Madras Medical College, 1876-77.

Madras Irrigation Series—
- No. 1. Pennair Delta and Red Hills Tank Project.
- No. 2. Survapally Tank enlargement Project, Pennair Delta.
- No. 3. Ryves' Canal, Kistna.
- No. 4. Shreeveicoontam Anicut Project.

1878.

63. Annual Report of the Civil Dispensaries for 1876-77. Price Rs. 2.
64. Report on Vaccination throughout the Presidency and Provinces of Madras, 1876-77.
65. Papers relating to the Survey and Settlement of the Salem District, 1878. Price Rs. 3.

1879.

Foundations in the sandy beds of Rivers and the Palaur Bridge Restoration.

1880.

66. Report on the Government Cinchona Plantations, 1880.

1883.

Godavery Kistna and Cauvery delta and the Pennair Anicut systems.

APPENDIX No. LXXXVI.

LIST OF PUBLIC OFFICES AT MADRAS TOWN WITH THEIR LOCALITY.

Accountant-General's Office...	Charles and James' Street, Fort Saint George.
Administrator-Genl.'s Office...	High Court Buildings, North Beach.
Advocate-General's Office ...	Do. do.
Army Clothing Agency Office.	Late Mint, Black Town.
Barrack Department, Presidency.	Fort Saint George.
Board of Examiners ...	Pantheon Road, Egmore.
Board of Revenue ...	Chepauk.
Camp Equipage Depôt ...	Next to Saint Mary's Burial Ground.
Commissary-General's Office...	Black Town, back of Sea Custom House.
Commissioner for the U.C.S. Examinations.	Pantheon Road, Egmore.
Commissioner of Police Office.	Do. do.
Consulting Architect to Government.	Chepauk.
Consulting Engineer for Railways.	Do.
Deputy Assistant Adjutant-General's Office.	Hanover Square, Fort.
Deputy Assistant Quarter-master-General's Office.	Fort Saint George.
Deputy Surgeon-General, H.M.'s Forces.	Do.
Director of Agriculture and Revenue Settlement.	Chepauk.
Director of Public Instruction Office.	Pantheon Road, Egmore.
Examiner of Public Works Accounts.	Chepauk.
Examiner, Railway Accounts.	Do.
Executive Commissariat Department.	Fort Saint George.
Executive Transport Office ...	Do.
Government Agent and Paymaster of Carnatic Stipends.	Chepauk.
Government Central Museum.	21, Pantheon Road, Egmore.
Government Lithographic Press.	Chepauk.
Government Observatory ...	Nungumbaukum.
Government Press	Fort Saint George.
Government Savings Bank ...	Bank of Madras, Black Town.
Government Secretariat ...	Cornwallis Square, Fort Saint George.
Government Telegraph Department.	First Line Beach.
Grand Arsenal	Fort Saint George.
Gun Carriage Factory ...	Naval Hospital Road, Vepery.
Gun Powder Factory ...	Vyasarpaudy.
Health Office	Kilpauk.
High Court of Judicature ...	North Beach.
Insolvent Debtors' Court ...	High Court Buildings, North Beach.
Inspector-General of Police ...	South Beach.
Inspector-General of Registration.	Mount Road.
Madras Meteorological Office.	Nungumbaukum.
Madras Survey Department ...	Chepauk.
Master Attendant's Office ...	Sea Custom House, Beach.
Military Accounts Office ...	Fort Saint George.
Municipal Office	Errabauloo Chetty Street, Black Town.
Official Assignee's Office ...	High Court Buildings.
Official Trustee's Office ...	Do.
Ordnance Department ...	Fort Saint George.
Postmaster-General's Office ...	First Line Beach.
Presidency Magistrates' Courts	Egmore and Black Town.
Presidency Pay Office ...	Charles' Street, Fort Saint George.
Presidency Postmaster's Office.	First Line Beach.
Principal Medical Storekeeper	Late Mint, Black Town.
Private Secretary to His Excellency the Governor.	Government House.
Protector of Emigrants ...	Sea Custom House.
Public Works Secretariat ...	Chepauk.
Public Works Stores and Workshop.	Seven Wells, North Black Town.
Quit-rent and Abkarry Departments.	Collector's Cutcherry, Mount Road.
Registration Offices	Black Town, Second Line Beach, and Mount Road.
Salt Department	Doveton House, College Road, Nungumbaukum.
Sanitary Commissioner's Office	High Road, Nungumbaukum.
Sea Custom House	Beach.
Small Cause Court	Black Town, Second Line Beach.
Staff Officer and Superintendent of Details.	Fort Saint George.
Superintendent of Family Payments and Pensions.	Do.
Superintendent of Prisons, Madras.	Penitentiary.
Superintendent of Stamps and Stationery.	First Line Beach.
Superintending Engineer, 5th Circle.	Chepauk.
Surgeon-General, H.M.'s Forces.	Fort Saint George.
Surgeon-General with the Government of Madras.	Do.

APPENDIX No. LXXXVII.

LIST OF COMPANIES AND SOCIETIES REGISTERED UNDER JOINT STOCK COMPANIES ACTS AND STILL WORKING IN THE PRESIDENCY.

(1) COMMERCIAL COMPANIES.

Name.	Objects for which established.	Capital.	Name.	Objects for which established.	Capital.
		RS.			RS.
Registered in 1864-65.			*Registered in* 1874-75—(Continued).		
Peermaid Coffee Company (Limited).	Working of Hope Coffee Estate in Travancore and of lands in the vicinity.	1,00,000	South Indian Railway Co-operative Society (Limited).	Retailing the necessaries of life to the employés of the South Indian Railway Company and others.	50,000
Registered in 1869-70.			Cochin Steam Mills (Limited).	Curing coffee, sawing timber, manufacturing casks, coffee-cases, &c.	40,000
Madras Deposit and Benefit Society (Limited).	Receiving money for fixed periods at interest and granting loans.	50,000	*Registered in* 1875-76.		
Registered in 1872-73.			Coimbatore Swadesha Dravya Shekara Nidhy (Limited).	Granting loans to members and others.	3,00,000
Madras Hindoo Mutual Benefit Fund (Limited).	Collecting monthly savings for the purpose of investing in landed or other property and for granting loans.	7,50,000	Wynaud Prospecting Company (Limited).	Acquiring and prospecting auriferous quartz reefs in Wynaud.	43,100
Coringa Company (Limited).	Manufacturing castor-oil and indigo, preparing rice, and ginning cotton.	2,00,000	*Registered in* 1876-77.		
Mylapore Hindoo Permanent Fund (Limited).	Mutual Loan Company.	2,99,964	Madras Provident Society (Registered).	Defraying the funeral and other incidental expenses attendant on the loss of the head of a family.	(150 Members).
Pursewaukum Hindoo Janaunoocoola Permanent Society (Limited).	Collecting monthly savings for investing in landed or other property and for granting loans to members and others.	2,07,000	Buckingham Mill Company (Limited).	Working of a spinning and weaving mill, buying raw cotton, wool, jute, silk and other fibres, spinning and weaving the same and selling the materials so manufactured.	7,00,000
Registered in 1873-74.					
Pursewaukum Hindoo Suntata Sunga Nidhy (Limited).	Do. do. ...	3,00,000	Madras Working Men's Provident Society (Registered).	Defraying the funeral and other incidental expenses attendant on the loss of the head of the family	(150 Members).
Triplicane Hindoo Mutual Benefit Permanent Fund.	Mutual Loan Company.	(1,000 Members).			
Madras Permanent Benefit Fund (Limited).	Do. do. ...	1,62,000	Mount Hindoo Mutual Benefit Permanent Fund (Limited).	Mutual Loan Company.	1,50,000
Registered in 1874-75.					
Southern India Alpha Gold Mining Company (Limited).	Gold Mining ...	6,00,000	The Cowl Bazaar Hindoo Permanent Fund (Limited).	Granting loans to members and others.	99,990

Name.	Objects for which established.	Capital.
Registered in 1877-78.		RS.
Madras Perpetual Building Society (Limited).	Mutual Loan Company.	4,62,000
Madras Building Association (Limited).	Do. do. ...	6,50,000
The Chintaudripett Loan Society (Limited).	Do. do. ...	3,20,000
Registered in 1878-79.		
Registered Land Mortgage and Building Society, First Branch, (Limited).	Do. do. ...	4,00,000
The Madras Native Permanent Fund (Limited).	Do. do. ...	2,00,000
Madras Building Society, Fourth Branch, (Limited).	Do. do. ...	5,00,000
The Madras Hindoo Benefit Fund, First Branch, (Limited).	Do. do. ...	70,000
The Madras Railway Co-operative Society (Limited).	Purchase of the necessaries of life for retail to the employés of the Madras Railway Company.	20,000
The Coimbatore Vartaca Vritty Dhanarjaca Sungam (Limited).	Enabling members to carry on trade.	2,00,000
The Pursewaukum Hindoo Janopacaura Nidhy, or General Benefit Fund, Fifth Branch, (Limited).	Granting loans to members.	3,00,000
The Adambaukum Hindoo Dhanopacaura Oopanidhy (Limited).	Granting loans to members and others.	81,000
The Neilgherry Mortgage Building and Provident Society (Limited).	Granting loans to members and enabling them to acquire lands and houses.	5,00,000
Registered in 1879-80.		
The Nungumbaukum Dhanarakshaca Nidhy (Limited).	Collecting monthly savings for investing in landed or other property, and for granting loans to members.	1,25,000
The Madras Saving and Benefit Society (Limited).	Saving money and granting loans to members.	20,000
The Conjeeveram Andersonpettah Hindoo Janopacaura Nidhy (Limited).	Do. do. ...	1,25,000
The Pursewaukum Hindoo Suntata Sunga Nidhy, First Branch, (Limited).	Do. do. ...	90,000
The Branch Neilgherry Building and Mutual Benefit Society (Limited).	Mutual Loan Company.	2,50,000
The North Travancore Land Planting and Agricultural Society (Limited).	Purchasing and cultivating lands in Travancore.	5,00,000
The Moottiaulpett Mutual Benefit Fund (Limited).	Saving money and granting loans to members.	50,000
Registered in 1880-81.		RS.
The Neilgherry Righi Railway Company (Limited).	Constructing a railway on the Righi system from Mettapolliem, through Culloor and Coonoor, to Ootacamund.	10,000
The Triplicane Hindoo Shreenidhy Society, First Branch, (Limited).	Collecting monthly savings for investing in landed or other property and for granting loans to members.	2,00,000
The Madras General Benefit Fund (Limited).	Making loans to members.	50,000
The Shree Alwar Nidhy (Limited).	Do. do. ...	40,000
The Madras Aroonachaleshwara Hindoo Savings Permanent Fund (Limited).	Granting loans to members and others.	1,00,000
The City of Madras Hindoo Association (Limited).	Do. do. ...	1,10,000
The National Deposit and Benefit Society (Limited).	Do. do. ...	50,000
The Madras Dhanasahaya Nidhy (Limited).	Do. do. ...	50,000
The Madras Hindoo Mutual Fund, Fourth Branch, (Limited).	Mutual Loan Company.	90,000
The Cox's Patent Compressed Food Company (Limited).	Purchasing a patent for the preparation and manufacture of compressed food for horses.	60,000
The Palghaut Gold Mining Company (Limited).	Gold Mining Company.	6,00,000
The Pursewaukum Poothoopett Hindoo Porool Sahaya Nidhy, First Branch, (Limited).	Granting loans to members and others.	40,000
The Native Deposit and Loan Fund (Limited).	Do. do. ...	1,70,000
The Madras Loan and Deposit Society (Limited).	Do. do. ...	10,000
The Egmore Benefit Society, Second Branch, (Limited).	Do. do. ...	6,50,000
The Madras Stable Company (Limited).	Carrying on the business in the letting of horses and carriages on hire and in the keeping of a livery stable.	1,50,000
Registered in 1881-82.		
The Bellary Spinning and Weaving Company (Limited).	To carry on the manufacture of cotton twists and cloth at Bellary.	6,00,000
The Moottiaulpett Benefit Fund, First Branch, (Limited).	Making loans to the subscribers of the company and others.	1,50,000
The Wynaud Consols Gold Mining Syndicate (Limited).	To search for gold in the district of Manantoddy.	24,000
The Shoolay Savings Fund, First Branch, (Limited).	Granting loans to its members on the security of immovable property.	60,000

Name.	Objects for which established.	Capital.
Registered in 1881-82—(Continued).		RS.
The People's Saving and Loan Society (Limited).	Granting loans to members and others.	30,000
The Chennaymanagaram Punchamookodbhavargal Paropacaura Saswata Nidhy (Limited).	Lending money on pro-notes to its members.	50,000
The Madras Reciprocal and Benefit Society (Limited).	Granting loans from the monthly collections to its members.	20,000
The Carnatic Mill Company (Limited).	To purchase apparatus for the working of a spinning and weaving mill.	10,00,000
The Chennay Yecaumbarapooram Masauntara Arjoona Shekhara Nidhy, or The Monthly Savings Fund, Third Branch, (Limited).	Mutual Loan Company.	1,20,000
The Madras Loan Fund, First Branch,(Limited)	Granting loans on pro-notes to its members.	40,000
The Taliyaur Valley Planting Company, (Limited).	For the cultivation of cinchona and other products.	1,00,000
The Salem Janopacaura Nidhy (Limited).	Lending monthly collections for interest to subscribers and others.	30,000
The Southern India Press Company (Limited).	To erect factories for pressing cotton, &c.	1,00,000
The Madras Poothoopett Hindoo Sookhasaugara Nidhy, Second Branch, (Limited).	Granting loans to its members.	1,00,000
The Kotagherry District Estates Gold Mining Company (Limited).	Gold mining ...	3,30,000
The Shreeman Madhwa Sidhanta Ounahiny Nidhy (Limited).	To lend money to subscribers and strangers on the security of jewels.	1,00,000
The Kartairy Coffee and Cinchona Company (Limited).	To acquire lands by purchase near Coonoor and to apply the same to the growth of coffee, cinchona and other products.	85,000
The Sydapett Parasparopacaura Nidhy (Limited).	Mutual Loan Company.	1,00,000
The Adambaukum Dhanashekara Saswata Nidhy (Limited).	Do. do. ...	2,02,500
The Mutual Aid and Benefit Society (Limited).	Granting loans to members and others.	75,000
The Alandoor Hindoo Artharakshaca Nidhy (Limited).	Do. do. ...	80,000
The Bringimahnagara Dravya Oopacaura Oopanidhy (Limited).	Mutual Loan Company.	81,000
The North Black Town Deposit and Loan Society (Limited).	Do. do. ...	25,000
The Byghoney Planting Company (Limited).	To acquire lands on the Neilgherries and to apply the same to the growth of coffee, cinchona and other products.	90,000
Registered in 1881-82—(Continued).		RS.
The Cennay Hindoo Saswata Dhanarakshaca Nidhy (Limited).	To invest savings in landed property and jewels and to make advances on them.	2,00,000
The Buckingham Canal Steam Navigation Company (Limited).	To carry on navigation in the Buckingham Canal for conveying goods and passengers.	4,00,000
The Comaleswaram Mutual Benefit Fund, First Branch, (Limited).	Granting loans to its members on the security of immovable property.	60,000
The Madras Building Society, Fifth Branch, (Limited).	Do. do. ...	7,50,000
The Madras Hindoo Loan Accommodation Fund, First Branch, (Limited).	Do. do. ...	80,000
Registered in 1882-83.		
The Hindoo Monthly Savings Fund, Second Branch, (Limited).	Making loans to the members of the company.	1,25,000
The Madras Permanent Saving and Benefit Society (Limited).	Do. do. ...	48,000
The Kurnool Diamond Company (Limited).	To acquire lands in the district of Kurnool and to search for diamonds and other precious stones and minerals.	4,000
The Jummalmudoogoo Press Company (Limited).	To buy and sell on commission yarn, cloth and other articles, and to press, clean and sell cotton.	70,000
The Ootacamund Cinchona Planting Association (Limited).	To acquire by purchase lands suitable for the cultivation of cinchona, and to cultivate and prepare or manufacture and dispose of the produce thereof.	50,000
The Madras Reciprocal and Benefit Society, First Branch,(Limited)	Mutual Loan Company.	1,00,000
The Tiroopore Press Company (Limited).	To erect buildings adapted to the working of a cotton press and ginning factory, and to buy and sell on commission yarn, cloth and other articles.	70,000
The Madras Camalavinayagar Perpetual Benefit Fund (Limited)	Mutual Loan Company.	60,000
The Pursewaukum Hindoo Janopacaura Saswata Nidhy, or Permanent General Benefit Fund (Limited)	Do. do. ...	4,00,000
The Nagamungalam Prospecting Company (Limited).	To search for gold, metallic ores, precious stones, &c., in the district of Nagamungalam, Mysore territory.	8,000

Name.	Objects for which established.	Capital.
Registered in 1882-83—(Continued).		RS.
The Neilgherry Permanent Building Society (Limited).	Mutual Loan Company.	5,00,000
The Madras Building Company (Limited).	Do. do. ...	2,10,000
The Bellary Bruce Pettah Hindoo Mutual Benefit Permanent Fund (Limited).	Do. do. ...	1,99,980
The Vellore Janasahaya Nidhy (Limited).	Do. do. ...	1,25,000
The Honnally Gold Mining Company (Limited).	To search for gold and other minerals in the lands to be acquired by the company.	4,00,000
The Ripon Press and Sugar Mill Company (Limited).	Pressing cotton and crushing sugar-cane.	1,25,000
The Western Press Company (Limited).	Pressing into bales raw cotton, wool, jute, hemp and other fibrous materials.	60,000
The Ancimoody Planting Company (Limited).	To plant, cultivate and dispose cinchona and other products.	1,25,000
The Madras Hindoo Dhanopacaura Nidhy (Limited).	Mutual Loan Company.	30,000
The East Indian and Anglo-Indian Deposit and Loan Society (Limited).	To receive deposits and to grant loans to members and others.	20,000
The Madras Hindoo Family Benefit Fund (Limited).	To defray the funeral and other expenses incidental on the death of a member.	(1,200 Members)
The Aryan Bank, Vizagapatam, (Unlimited).	To trade in gold, silver and other minerals and precious stones.	1,00,000
First Branch of the Neilgherry Mortgage Building and Provident Society (Limited).	Mutual Loan Company.	5,00,000
The Nungumbaukum Saswata Dhanarakshaca Nidhy (Limited)	Do. do. ...	2,02,500
The Hindoo National Bank (Limited).	Do. do. ...	1,00,000
The Conjeeveram Hindoo Parasparopacaura Nidhy (Limited).	Do. do. ...	2,00,000
The Conjeeveram Hindoo Cootoomba Jeevanathaura Nidhy (Limited).	To defray the funeral and other expenses incidental on the death of a member.	(1,200 Members)
The Desoor Hindoo Artharakshaca Nidhy (Limited).	Making loans to members and others at reasonable rates of interest.	40,000
The Sahodara Sahaya Saswata Nidhy (Limited).	Mutual Loan Company.	20,000
The Industrial Development Association's Malabar Plantation Company (Limited).	To cultivate lands in Malabar and to trade in timber and other produce.	2,00,000
The Conjeeveram Andersonpettah Dhanarakshaca Nidhy (Limited).	Mutual Loan Company.	4,00,000

Name.	Objects for which established.	Capital.
Registered in 1883-84.		RS.
The Chennaymanagaram Punchamookodbhavargal Porool Sahaya Nidhy (Limited).	Mutual Loan Company.	16,000
The Hindoo Lutchmee Nidhy, First Branch, (Limited).	Do. do. ...	30,000
The Moottiaulpett Mutual Benefit Fund, First Branch, (Limited)	Do. do. ...	1,05,000
The Great Southern of India Hotel Company (Limited).	To facilitate travelling and sojourning by providing hotels and conveyances.	5,00,000
The Bellary Cowl Bazaar Public Mutual Benefit Permanent Fund (Limited).	To grant loans to subscribers and others.	99,984
The Wallajahbad Janasahaya Nidhy (Limited)	Mutual Loan Company.	1,50,000
The Moottiaulpett Mahomedan Mutual Benefit Fund (Limited).	To make loans to subscribers and others.	8,000
The Southern Monarch Company (Limited).	To unload and sell all that is on board the wreck of the ship "Southern Monarch."	42,500
The Coimbatore Janopacaura Nidhy (Limited).	Banking Company.	1,00,000
The First Branch Chintaudripett Society (Limited).	Mutual Loan Company.	3,00,000
The Calicut Pier and Warehouse Company (Limited).	To carry on the business of warehousemen and to levy cranage and other dues and tolls.	5,000
The Pulvanhully Gold Mining Company (Limited).	Gold Mining Company.	3,00,000
The Goolburgah Mills Company (Limited).	To carry on the manufacture of cotton twist and cloth and other articles.	8,00,000
The Ilithoray and Kartairy Gold Mining Company (Limited).	Gold Mining Company.	3,00,000
The Hindoo Sahacootoomba Jeevanaunoocoola Nidhy (Limited).	To provide subscribers and their heirs with a pension of Rupees 2 and upwards per mensem.	(800 Members).
The Sabapaty Press Company (Limited).	To purchase kuppaus cotton or other produce and trade in the same.	2,50,000
The Conjeeveram Andersonpettah Janannoocoola Nidhy (Limited).	Mutual Loan Company.	1,05,000
The Permanent Investment Saving and Lending Society (Limited).	Banking Company.	50,000
The Vepery Deposit and Loan Society (Limited).	Do. ...	50,000
The Hindoo Oopacaura Chettoo Nidhy (Limited).	Mutual Loan Company.	27,000
The Conjeeveram Pillaypolliem Hindoo Dravya Poshana Sungam (Limited).	Do. do. ...	2,00,000

Name.	Objects for which established.	Capital.
		RS.
Registered in 1883-84—(Continued).		
The Chingleput Dhanashekara Nidhy (Limited)	Mutual Loan Company.	2,50,000
The Madras Hindoo Perpetual Fund (Limited)	Do. do. ...	3,00,000
The Madras Pedda Naick's Pettah Hindoo Mutual Benefit Fund, Second Branch, (Limited).	Do. do. ...	1,00,000
The Malabar Spinning and Weaving Company (Limited).	To carry on the manufacture of cotton twist and cloth by the erection of a spinning and weaving mill at Calicut.	6,00,000
The Panapaukum Sakala Janopacaura Nidhy (Limited).	Mutual Loan Company.	1,50,000
The Native Bank, Vizianagram, (Unlimited).	Banking Company.	80,000
The Chingleput Hindoo Cootoomba Jeevanathaura Nidhy (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,500 Members)
The People's Saving and Loan Society, First Branch, (Limited).	To make loans to subscribers and others.	30,000
The National Indian Benefit Fund (Limited)	Mutual Loan Company.	30,000
The Bringimahmullay Hindoo Porool Sahaya Saswata Nidhy (Limited).	Do. do. ...	60,000
The Shree Nummaulwar Nidhy (Limited).	Do. do. ...	40,000
The Hindoo Cootoomba Janartha Sahaya Sungam (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,000 Members)
The Madras Hindoo National Provident Fund (Limited).	Do. do. ...	(1,200 Members)
The Madras Reciprocal and Benefit Permanent Society (Limited).	Mutual Loan Company.	1,00,000
The Periapett Hindoo Dravya Sahaya Nidhy (Limited).	Do. do. ...	40,000
The Madras Hindoo Union Bank (Limited).	Banking Company.	1,00,000
The Triplicane Hindoo Permanent Nidhy (Limited).	Mutual Loan Company.	1,99,920
The Shree Conjeeveram Hindoo Moksha Samrajya Nidhy (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,000 Members)
The Madras Mahomedan Nidhy Oopacaura Nidhy (Limited).	Mutual Loan Company.	8,000
The Madras Jeevarakshamrita Nidhy (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(900 Members)
The Madras Family Provident Fund (Limited).	Do. do. ...	(1,200 Members)
The Shree Alavandar Nidhy (Limited).	Mutual Loan Company.	45,000

Name.	Objects for which established.	Capital.
		RS.
Registered in 1884-85.		
The Madras Washermenpett Hindoo Marriage Relief Fund (Limited).	To provide for the payment of an amount not exceeding Rupees 300 for the marriage of a member of the company.	(1,500 Members)
The Shreeniketana Bank, Vizianagram, (Unlimited).	Banking Company...	60,000
The Triplicane Hindoo Permanent Savings Fund (Limited).	Mutual Loan Company.	99,990
The Madras General Benefit Fund, First Branch, (Limited).	Do. do. ...	40,000
The Cauverypauk Hindoo Dravya Paripaulana Nidhy (Limited).	Do. do. ...	1,26,000
The Madras Hindoo Family Provident Fund (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(805 Members)
The Tinnevelly Mills Company (Limited).	To carry on the business of spinning, weaving, dyeing and finishing cotton and other goods of the like kind.	4,00,000
The Negapatam Ice Company (Limited).	To carry on the manufacture and sale of ice and other articles.	20,000
The Chingleput Hindoo Cootoomba Sahaya Dharma Paripaulana Nidhy (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,600 Members)
The Chittairy Planting Company (Limited).	To plant, cultivate, and dispose of cinchona and other products.	45,000
The National Provident Society (Registered).	To defray the funeral and other expenses attendant on the death of a member.	(500 Members)
The Cauverypauk Janopacaura Porool Shekhara Nidhy (Limited).	Mutual Loan Company.	2,50,000
The Madras Satyasamajam Hindoo Family Provident Fund (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,200 Members)
The Trivellore Paraspara Oopakarartha Nidhy (Limited).	Mutual Loan Company.	1,00,000
The Shreemat Ramanooja Nidhy (Limited).	Do. do ...	40,000
The Madras Death Benefit Fund (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,000 Members)
The Conjeeveram Ayyampett Janodhara Nidhy (Limited).	Mutual Loan Company.	1,00,000
The Cuddapah Provident Fund (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,200 Members)
The Chintaudripett Union Hindoo Jana Jeevanantara Nidhy (Limited).	Do. do. ...	500

Name.	Objects for which established.	Capital.
Registered in 1884-85—(Continued).		RS.
The Coonnatore Shiva Soobramanya Sawmy Hindoo Cootoomba Rakshaca Nidhy (Limited).	To defray the funeral and other expenses attendant on the death of a member.	3,450
The Bringimahnagara Dhanopacara Nidhy (Limited).	Mutual Loan Company.	60,000
The Madras Hindoo Girls' Benefit Society (Limited).	To provide for the payment of a sum of Rupees 400 or Rupees 200 according to class, on intimation of the attainment of puberty of the nominees of the members.	(2,000 Members).
The Pursewaukum Hindoo Janaunoocoola Permanent Society, First Branch, (Limited).	Mutual Loan Company.	4,00,000
The Madras Mutual Helping Fund (Limited).	Do. do. ...	20,000
The Madras Hindoo Mutual Relief Fund (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,200 Members).

Name.	Objects for which established.	Capital.
Registered in 1884-85—(Continued).		RS.
The Cennay Vethavinayagar Nirantara Vivaha Nidhy (Limited).	To provide for the payment of an amount according to classes into which the company is divided for the marriage of any member.	(4,800 Members)
The Madras Chintaudry Soodesha Bhasha Hindoo Parasparopacara Permanent Fund (Limited).	Mutual Loan Company.	50,000
The Cusbah Vellore Cootoomba Samrakshana Sungam (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(500 Members)
The Cauverypauk Hindoo Sayoojya Padavy Nidhy (Limited).	Do. do. ...	(1,000 Members)
The Triplicane Arasady Carpagavinayagar Hindoo Union Fund (Limited).	Mutual Loan Company.	20,000
The Ishta Jana Poshaka Nikshepam (Limited).	To defray the funeral and other expenses attendant on the death of a member.	(1,250 Members)

(2) LITERARY AND OTHER SOCIETIES.

Date of Registration.	Name.	Capital, &c.
		RS.
4th January 1878	The Neilgherry Library	......
20th January 1880	The Madura Widows' Aid Society	......
12th March 1883	The Industrial Development Association (Limited)	7 Members.
30th March 1883	The Eurasian and Anglo-Indian Association of Southern India for the promotion of political, moral and intellectual advancement of the members of the Association	500 Members.
2nd October 1883	The Chingleput Hindoo Saswata Dharma Paripalana Nidhy ...	......
12th August 1884	The Sahodara Sungam of the American Arcot Mission	......
26th November 1884	The Veda Vedanta Vardhany	......
6th December 1884	The Santara Sungam	......

APPENDIX No. LXXXVIII.

POSTAL RULES FOR OFFICIAL CORRESPONDENCE

(Corrected to the end of 1884).

INLAND CORRESPONDENCE.

Official rates of postage.

Prepayment is optional in all cases, except for registered or insured articles and post-cards. Unpaid rates are the same as the prepaid rates. Subject to the following conditions all articles transmitted through the inland post in the course of official correspondence can be sent at the undermentioned rates:—

—	Post-cards.	Letters.	Packets in open covers, as described in clauses 60 & 66 of the Postal Guide, to contain only books or patterns, including articles coming under that head, as described in clauses 58 and 64 of the Postal Guide.	Parcels, without restriction as to contents, except dangerous or other articles objected to under clauses 85 to 87 of the Postal Guide.
	AS.	AS.	AS.	AS.
Each post-card	¼	...	.....	...
Not exceeding ½ tolah	...	½		
Exceeding ½ and not exceeding 10 tolahs	...	1	½	4
Do. 10 do. 20 do.	...	2	1	
Do. 20 do. 30 do.	...	3	1½	
Do. 30 do. 40 do.	...	4	2	8
Do. 40	...	1 anna per tolah see Note (a)	½ anna per 10 tolahs.	...
Do. 40 do. 80 do.	...	...	......	12
For every additional 40 tolahs	...	...	......	4

Note (a).—Thus an article weighing 41 tolahs will be charged with 41 annas. Articles which exceed 40 tolahs will be conveyed by parcel post (as packets or as parcels) at the lower rate of charge, unless specially marked by the senders for transmission as letters, or prepaid at letter rates.

Note (b).—All letters are forwarded by letter post; also all packets not exceeding 20 tolahs in weight, and any fully prepaid packet exceeding 20 tolahs which contains only a single official gazette are forwarded by letter post. All other articles are forwarded by the slower parcel post.

Clause 58 of the Postal Guide.—A book packet may contain:—(*a*)—Newspapers (which includes periodicals published at intervals not exceeding 13 days) and publications of all kinds. (*b*)—Books, whether blank or printed; engravings, photographs, drawings, plans, maps, printed music, and proof sheets, with or without the manuscript relating thereto. (*c*)—Any quantity of blank paper, parchment, or card-board. (*d*)—And generally anything printed, engraved, lithographed or papyrographed, on paper, parchment, or card-board. With the above articles may be sent any legitimate binding, mounting, or covering, loose or attached, and anything that ordinarily appertains to such articles, as pens and pencils in the case of a pocket-book, photographs in the case of a photograph-book, card-plates in the case of visiting-cards, &c. But no written communication of the nature of a letter, or having the character of a personal communication, may be enclosed with these articles, or written upon them. This, however, does not exclude inscriptions or entries stating who the sender is or to whom the articles are to be given. (*e*)—Business paper written or drawn wholly or partly by hand, not being of the nature of a letter or having the character of a personal communication, such as deeds, bills of lading, invoices, accounts, &c. (*f*)—Manuscript of all kinds, including manuscript music, not being of the nature of personal correspondence. Manuscript sent to a newspaper for publication may also be sent as a book packet, even when it has the form and character of personal correspondence. With any of the above-mentioned articles may be sent anything that is necessary for their safe transmission through the post, such as rollers, &c.

Clause 60 of the Postal Guide.—A book packet must be posted either without a cover, or with a cover open at both ends, or in an open envelope, so as to admit of a ready examination of its contents. A closed envelope, notched at the sides or ends, does not admit of a ready examination of its contents, and does not therefore fulfil the prescribed conditions.

Clause 64 of the Postal Guide.—Pattern packets may only contain bonâ fide trade patterns or samples of merchandise which must not possess any saleable value.

Clause 66 of the Postal Guide.—A pattern packet must be posted either without a cover or with a cover open at both ends, so as to admit of a ready examination of its contents. An exception to this rule is made in favour of samples of seeds, drugs, and other articles which cannot be sent in open covers: such samples may be sent enclosed in boxes or bags, so long as they are fastened in such a way that they can be easily opened. They may also be sent in air-tight cases when necessary, provided that the nature of the contents is certified on the cover under the full signature and address of the sender.

Clauses 85—87 of the Postal Guide.—Nothing which, either from its own nature or by reason of insecure packing, is liable to injure the contents of the mail bags, or the persons of the mail officers, may be sent by the inland post. Of this character are explosive substances, such as gunpowder, matches, percussion caps, and substances, such as glass, liquids, oil, &c. In the case of parcels, however, the transmission of drugs or medicines in glass phials, securely packed in proper cases, is not prohibited. Nothing contraband and nothing on which duty is owing to Government may be sent through the inland post; nor may opium be sent otherwise than on Government account, nor bhang, ganja, siddhee, or other preparations of hemp, for transmission to British Burmah, Port Blair, or Nankowry. No indecent or obscene print, painting, photograph, lithograph, engraving, book, or card, or any other indecent or obscene article may be sent by the inland post; nor may any letter, post-card, newspaper, packet, or parcel be sent having on it any words, marks, or designs of an indecent, obscene, libellous, or grossly offensive nature.

Persons entitled to send articles at official rates.—All Government officials are entitled to send articles at the above rates, provided that such articles are bonâ fide and exclusively on Her Majesty's Service.

Government officers on leave and Government officers who have retired from the service are not entitled to this privilege in any case.

The Registrars of the Universities at Calcutta, Madras and Bombay are also entitled to send at official rates the correspondence of their offices, in so far as it relates solely to the public business of the universities. The privilege does not extend to any University official other than a Registrar.

Local Fund officials not entitled to privilege.

Correspondence sent by a Local Fund officer, or by any Government officer acting in a capacity connected with a Local Fund, such as President or Secretary of a Local Fund committee, is not official correspondence within the meaning of these rules, and may not be superscribed as on Her Majesty's Service. But nothing in this rule is held to prevent the transmission on Her Majesty's Service of correspondence sent by a Government officer acting as such, even though the correspondence may relate to the affairs of a Local Fund; for instance, the Commissioner of a division writing *in that capacity* to a Local Fund officer concerning Local Fund affairs, may superscribe the letter on Her Majesty's Service. The term Local Fund, as used in this rule, is intended to include Municipalities and other similar bodies or institutions.

Conditions to be observed in sending articles at official rates.

The articles must not exceed in weight 600 tolahs. If prepaid, prepayment must be made by means of service postage stamps. The stamps must be supported by the superscription on the cover "On Her Majesty's Service," under the full signature and official designation of the Government officer who sends the article, or of the Head Clerk or Superintendent of his office, or of other responsible officer to whom the duty of despatching is confided. The particular officer who signs the cover must enter in full his own official designation, in order that his individual responsibility may be enforced in cases of doubt or fraud. Service stamps affixed to an article without the above superscription will not be recognized by the Post office in payment of postage.

(*a*) Postmasters are allowed to recognize abbreviated designations, provided they are generally known. But no official can claim the recognition of an abbreviation, the rule being that the designation shall be entered in full.

(*b*) Postmasters are allowed to recognize fac-simile impressions of signatures, i.e., signatures impressed by stamps; but public officers who use such stamps are expected to make arrangements for their proper custody and use; and if there be any reason to suspect the misuse of such stamps, or the absence of proper precautions against their misuse, Postmasters may decline to recognize the stamp impression and require strict adherence to the rule. Lithographed impressions of signatures, as well as printed names, cannot be recognized in lieu of signatures; fac-simile impressions by means of stamps used under proper precautions being the only substitute for actual signature which can be recognized.

(*c*) For official gazettes in open covers posted in large numbers by the office of publication a printed name may be substituted for the signature.

Penalty for breach of conditions as to address.

Any irregularity or incompleteness of the address, superscription or signature on an article renders it liable to be treated as an ordinary unpaid article, any service stamps which it may bear not being recognized.

Procedure when postage not prepaid.

Official articles properly superscribed but without stamps, are charged with postage on delivery at prepaid official rates. Insufficiently paid articles are charged with the deficiency. In cases where it is not thought advisable to entrust postage stamps to a subordinate official, who has to correspond with, or send returns to, a superior, he may be allowed by his superior to address official articles to him under this rule, and the same course may be adopted in other cases where it is found convenient or proper to make the postage charge fall on the receiving office.

Procedure if ordinary stamps used for service stamps.

When ordinary stamps, instead of service stamps, are used on articles properly superscribed, they will be recognized by the Post office; but the irregularity should be brought by the Post office to the notice of the officer concerned, and, if of frequent occurrence, to that of the Postmaster-General.

Government officials may send articles "Service unpaid."

Letters, parcels and packets sent by Government officers in their official capacity, which relate nevertheless to the private interests and concerns of the individuals addressed, may be endorsed as "Service unpaid" under the full signature and official designation of the person by whom they are sent. Letters, parcels and packets so addressed are regarded by the Post office as private articles, but are charged, on delivery, with unpaid postage at prepaid rates, and not at double rates, as in the case of ordinary articles. Under this head come replies sent to communications of the kind noted in the margin, as well as any other communications of a like kind which Government officers may make to individuals (whether private persons or Government officers) relating to the private interests of the addressees.

Petitions, applications for appointments, requests for transfer, inquiries about title to leave, &c.

Public in certain cases may send articles "Service unpaid."

Letters, parcels and packets sent by private persons to Government officials relating to the affairs of Government, and endorsed as above, under the full signature of the sender (the address including the full official designation of the public office to which the article is sent), are charged, on delivery, at the rate to which they would have been liable if prepaid by ordinary stamps, and not at double rates, as in the case of ordinary articles. This rule is intended to provide for cases of zemindars reporting the occurrence of crime to a police officer, of employers of labourers sending returns required by the Protector, and of any similar reports or returns authorized to be so sent.

Special rules as to delivery of official correspondence on which postage is due.

The amount of postage marked as due on articles delivered under the superscriptions of "Service unpaid" or "On Her Majesty's Service" will be initialled by the Postmaster or other appointed officer in the office of delivery. Government officers are bound to receive and pay the postage which may be due on articles addressed to them under the superscription "On Her Majesty's Service" and under the signature in full of the sender.

Official articles, registered, insured and sent as value-payable.

Articles transmitted by officials under the above rules can be registered, insured, or forwarded as value-payable, under the ordinary rules; but the postage and the fees for registration or insurance can be paid by means of service stamps.

Correspondence (official and private) of Governments when head-quarters are changed.

When changes of head-quarters are made or camps formed by the Governments and Administrations named in the margin, they should give timely intimation to the local Postmaster-General or Deputy Postmaster-General, as well as to the local Superintendent, Railway Mail Service. When camps are formed they should also instruct their correspondents to address articles intended for transmission to the camp, with the word "Camp" in lieu of a post-town. Articles addressed to a post-town can be sent by the Post office only to the post-town. If the address contains neither post-town nor camp, the article will be sent to the head-quarters station of the Government or Administration.

Government of India.
Government of Bengal.
Government of Madras.
Government of Bombay.
Government of the North-Western Provinces.
Government of the Punjaub.
Commander-in-Chief, India.
Commander-in-Chief, Madras.
Commander-in-Chief, Bombay.
Agent, Governor-General, Rajpootana.
Chief Commissioner, Assam.
Chief Commissioner, Central Provinces.

The camp movements of a Local Government or Administration cannot be notified to the Post office beyond the limits of the province: so that it may not always be possible so to regulate the route of entry of correspondence coming from outside the province as to avoid all possibility of circuitous travelling. But all reasonable endeavour will be made to secure its travelling by the nearest route.

FOREIGN CORRESPONDENCE.

Official correspondence conveyed by foreign post.

The rules contained in the preceding clauses relate exclusively to official inland correspondence, i.e., correspondence conveyed by the inland post. Official correspond-

ence conveyed by the foreign post is governed by the same rules as ordinary private correspondence, and must either be prepaid by service stamps (under the usual superscription and signature), or, where prepayment is optional, be forwarded as unpaid, subject to the levy of postage on delivery.

The only exception to the above has reference to official letters (not newspapers or other articles) sent by British packets to or from the public functionaries or departments in London, having special accounts for foreign letter postage with the London Post office. Official letters intended for such offices need not be prepaid if superscribed as "On Her Majesty's Service" under the full signature and official designation of the sender. The public functionaries or departments in London which have accounts with the London Post office are :—

Adjutant-General's Office (Horse Guards).
Admiralty (Somerset House and Whitehall).
Audit and Exchequer Department (Somerset House).
Board of Trade (Whitehall).
Census Office (Craig's Court).
Chancellor's Office (Downing Street).
Charity Commission (York Street, St. James').
Chelsea Hospital (Chelsea).
Civil Service Commission (Cannon Row, Westminster).
Colonial Office (Downing Street).
Colonial Land and Emigration Office (Park Street, Westminster).
Commander-in-Chief's Office (Horse Guards).
Council of Military Education (Great George Street).
Council Office (Downing Street).
Court of Bankruptcy (Basinghall Street).
Courts of Chancery (Lincoln's Inn Fields and Chancery Lane).
Court of Probate (Doctors' Commons).
Crown Agents for the Colonies (Spring Gardens).
Duchy of Cornwall (Buckingham Palace Gate).
The Customs (Lower Thames Street).
Ecclesiastical Department (Whitehall Place).
Endowed Schools Commission (Victoria Street).
Exhibition Commissioners, 1851 (Westminster).
Foreign Office (Downing Street).
Her Majesty's Home Office (Whitehall).
House of Commons.
India Office (Charles' Street, Westminster).
Irish Office (Great Queen Street, Westminster).
Inland Revenue (Somerset House).
Local Government Act Office (Richmond Terrace, Whitehall).
Merchant Seamen's Office (Adelaide Place, London Bridge).
Metropolitan Police Office (Whitehall Place).
Paymaster-General (Whitehall).
Local Government Board (Gwyder House, Whitehall).
Post Office.
Prisons Office (Parliament Street).
His Royal Highness the Prince of Wales.
Quartermaster-General's Office (Horse Guards).
Registrar of Friendly Societies (Abingdon Street).
Registrar-General's Office (Somerset House).
Royal Artillery.
Royal Marines (New Street).
Science and Art Department.
Warden of Standards.
Stationery Office (Prince's Street, Storey's Gate).
Tithe Copyhold and Enclosure Commissioners (St. James' Square).
Treasury Office (Whitehall).
Tower.
Veterinary Department of the Privy Council (Prince's Street, Westminster).
War Office (Pall Mall).
Woods, Forests and Land Revenue Office (Whitehall Place).
Works and Public Buildings Office (Whitehall Place).

N.B.—The official letters received by British packets from the public functionaries or departments in London above enumerated are marked by the London Post office with the red "official paid" stamp which is the authority for delivery in India without charge. In some cases, however, articles which have been received enclosed in official letters of the above description are re-posted in India under the impression that the frank of the public office in London will carry them to destination free of charge. But this is not the case, the only letters recognized as official being those described above as bearing the London Post office "official paid" stamp, and those which under the preceding rules are franked by public officers in India.

APPENDIX No. LXXXIX.

STATISTICAL RETURN OF INDUSTRIES IN THE PRESIDENCY FOR 1883.

District.	Name of Work or Factory.	Nature of Industry.	Average number of Persons employed daily. Throughout the Year.	During a special Working Season. Number.	During a special Working Season. Months.	Capital (if a Joint Stock Company).	Annual Outturn. Quantity.	Annual Outturn. Value.	Remarks.
1	2	3	4	5	6	7	8	9	10
						RS.	LB.	RS.	
Anantapore ...	Messrs. Arbuthnot and Co.'s Cotton Press at Goontacull, Gooty.	Press cotton into bales.	8	7	Between April and October.	...	310,500	52,750	Outturn in this district was much less than in the previous year owing to smaller outturn of the cotton crop and to the starting of a new press in the Cuddapah District.
	Mr. R. C. Walker's Press at Tadpatry.	Do. ...	9	39	Employed for 37 days between April and October.	...	690,771	1,17,952	
	Messrs. Harvey and Sabapaty's Press at Tadpatry.	Do. ...	14	26	Employed for 43 days between March and June.	...	1,547,416	2,65,619	
Bellary	Messrs. Sabapaty Moodelliar and Co.'s Cotton Press at Bellary.	Do. ...	70	70	April to November...	80,000	2,560,000	4,48,000	
	Messrs. Dymes and Co.'s Cotton Press at Bellary.	Do. ...	33	12	April to October ...	Not known.	2,816,837	4,78,969	
	Messrs. Arbuthnot and Co.'s Cotton Press at Bellary.	Do. ...	54	...	......	1,00,000	2,184,000	3,63,100	
	Western Press (late Brunton Press, Limited) at Bellary.	Do. ...	18	...	......	60,000	880,000	1,23,000	
	Bellary Spinning and Weaving Mill ...	Spinning thread ...	290	...	......	6,00,000	225,710	93,105	Newly started.
	Lubbay Mahomed Moohee ood deen Sahib's Tannery at Bellary.	Tanning skins on the European system.	25	...	......	...	27,000 or 36,000 pieces.	13,500	
	Butler Sheikh Beiraum Sahib's Tannery at Bellary.	Do. ...	...	...	......	...	...	...	It is reported that no work was done during the year.
	Dyauca Shancara Tannery at Bellary.	Do. (hides) ...	8	...	......	...	30,000 or 2,500 pieces.	15,000	
	Setwajee's Tannery at Bellary ...	Do. ...	4	...	......	...	14,400 or 1,200 pieces.	7,200	
	Messrs. Sabapaty Moodelliar and Co.'s Cotton Press at Adony.	Pressing cotton into bales.	40	83	May to August ...	2,50,000	2,514,800	4,40,090	
	Messrs. Dymes and Co.'s Cotton Press at Adony.	Do. ...	50	75	April to October ...	Not known.	2,203,805	3,69,578	
	Messrs. Framjee and Co.'s Cotton Press at Adony (late Brunton's Press).	Do. ...	40	100	March to September.	...	1,224,660	2,00,000	
Coimbatore ...	Cotton Press of Messrs. Fisher and Co. at Erode.	Do. ...	...	32	Except February, May and November.	...	151,800	27,324	

STATISTICAL RETURN OF INDUSTRIES IN THE PRESIDENCY FOR 1883—(*Continued*).

District.	Name of Work or Factory.	Nature of Industry.	Average number of Persons employed daily.			Capital (if a Joint Stock Company).	Annual Outturn.		Remarks.
			Throughout the Year.	During a special Working Season.			Quantity.	Value.	
				Number.	Months.				
1	2	3	4	5	6	7	8	9	10
						RS.	LB.	RS.	
Coimbatore ...	Cotton Press of certain Madras Merchants at Pulladam.	Pressing cotton into bales.	...	92	Number of working days was 87, from May to December.	...	2,679,000	4,82,220	Worked by manual labor.
	Tiroopore Cotton Press Company (Limited) at Pulladam.	Do. ...	...	80	Number of working days was 109, from July to December.	...	1,775,200	3,01,784	Newly started in July 1883.
	Cotton Press of Messrs. Stanes and Co. at Coimbatore.	Do. ...	120	...	......	...	745,500	1,34,000	
	Cotton Press of Careemjee Sait and Co. at Coimbatore.	Do. ...	...	79	April to December...	...	1,306,500	2,24,554	Worked by manual labor.
	Coimbatore Coffee Works of Messrs. Stanes and Co.	Coffee cleaning and sizing.	625	...	......	...	4,032,000	14,40,000	
	Mahomed Mareycauyar and Co. at Coimbatore.	Tanning on the European system.	92	...	......	...	168,436	1,36,405	
	Mr. Simon's Tannery at Coimbatore ...	Do. ...	42	...	......	...	74,000	55,500	
	Peer Mahomed Mareycauyar and Co. at Coimbatore.	Do. ...	...	...	......	...	...	...	Outturn cannot be given owing to the proprietor's absence from the place.
	Sheik Adam Sahib and Co. at Mettapolliem.	Do. ...	10	...	......	...	31,128	22,950	Newly started.
	Syed Mahomed Mareycauyar and Brothers at Pullaputty, Caroor.	Do. ...	18	...	......	...	36,949	39,804	
	Madras Cotton Cleaning Company (Limited), Yakoob Sahib's Tannery at Tandony and Mahomed Cassim's Tannery at Neroor.	......	...	...	......	...	...	...	Ceased to work during the year.
Cuddapah ...	Messrs. Dymes and Co. at Proddootore.	Pressing cotton into bales.	19	56	From May to Dec. ...	...	3,799,600	6,99,126	
	The Jummalmudoogoo Press Company (Limited) at Jangaulapully.	Do. ...	22	60	Do. ...	70,000	2,526,800	5,05,260	Newly started.
Ganjam	Aska Factory	Sugar manufacture...	* 500	* 500	From March to May.	...	5,245,464	5,10,594	* This is the number employed both for the sugar works and distillery.
Godavery ...	Two Cotton Presses	......	Not worked during the year.			...	...	...	
Kistna	Four Cotton Presses of which two were out of use.	Pressing cotton into bales.	45 in each factory.	...	......	...	† 8,056,500	† 1,35,61,109	† Represent the outturn of two factories.
Madras	Messrs Massey and Co.'s Napier Works.	Iron works and general engraving.	220	...	......	...	672,000	62,000	
	Madar Sahib's Tannery	Tanning skins on the European system.	30	...	......	...	6,600	3,300	
	Cawder Sahib's Tannery	Do. ...	84	...	......	...	30,000	15,000	
	V. G. Ibrahim Sahib's Tannery ...	Do. ...	25	...	......	...	6,000	6,000	Newly started.
	Ramanjooloo Chetty's Tannery ...	Do. ...	70	...	......	...	24,000	12,000	

	Seetaram Naick's Tannery	Do. ...	15	...	......	...	3,000	1,500	
	Portland Cement Works	...	...	...	......	...	...	...	Messrs. Arbuthnot and Co. have not furnished any information regarding their Portland Cement Works.
	Parthasarady Chetty's Tannery ...	...	...	...	......	...	...	...	Not worked during the year.
	Messrs. Wilson and Co.'s Mills ...								
Madura	Eugene de Fonde Clair's Coffee Plantation at Periyaur, Lower Pulney.	Coffee curing, &c. ...	55	...	......	...	25,000	7,500	Newly started.
	Mr. G. Vans Agnew's Coffee Works at Dindigul.	Do. ...	44	...	......	...	246,400	64,000	
	Mr. Young's Coffee Works at Dindigul.	Do. ...	2	...	......	...	16,250	4,550	
	P. A. C. S. Cawder Meer Sahib Mareycauyar at Pootchinaickanputty.	Tanning skins on the European system.	50	...	......	...	120,000	80,000	
	Vanasuna Moohi-ood-deen Mareycauyar at Pootchinaickanputty.	Do. ...	40	...	......	...	100,000	70,000	
	Mahomed Rowtan and Co. at Tenkaray.	Do. ...	5	...	......	...	12,871	12,570	Newly started.
Malabar ...	Basel Mission Weaving Establishment at Chiracal.	Weaving	199	...	......	47,500	yds. 98,764	66,342	
	Basel Mission Weaving Establishment at Calicut.	Do.	80	...	......	Not known.	„ 35,000	12,000	
	Basel Mission Weaving Establishment at Cottayam.	Do.	34	...	......	Do.	„ 10,000	2,500	
	Hinde and Co.'s Coffee-curing Establishment at Cottayam.	Curing coffee by machinery and by manual labor.	...	690	January to May ...	Do.	lb. 1,456,000	4,55,000	
	Pierce, Leslie and Co.'s Coffee-curing Establishment at Cottayam.	Do. ...	...	770	Do. ...	Do.	2,800,000	8,75,000	
	Alston and Co.'s Coffee-curing Establishment at Cottayam.	Do. ...	...	800	Do. ...	...	2,968,000	9,27,500	
	Volkart Brothers' Coffee-curing Establishment at Cottayam.	Do. ...	...	335	Do. ...	...	1,601,600	5,00,500	
	D. Manockjee and Co.'s Coffee-curing Establishment at Calicut.	By manual labor ...	...	100	December to April ...	...	89,600	25,000	
	Andrew and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	200	Do. ...	...	280,000	80,000	
	Stanes and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	430	Do. ...	...	896,000	2,80,000	
	Pierce, Leslie and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	750	Do. ...	...	2,520,000	8,00,000	
	Hinde and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	600	Do. ...	...	2,128,000	6,65,000	
	Ouchterlony and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	...	No information is available.		...	...	
	Volkart Brothers' Coffee-curing Establishment at Calicut.	Do. ...	...	200	December to April ...	...	328,592	1,05,015	These two Companies were established in the year 1883.
	Jung and Co.'s Coffee-curing Establishment at Calicut.	Do. ...	...	100	Do. ...	...	15,120	3,100	
	Massey and Co., Agents to Arbuthnot and Co.'s Saw Mills.	Saw Mills	...	...	No particulars are available.		...	...	
	Jung and Co.'s Coffee-curing Establishment at Cottayam.	......	...	...	......	...	...	...	Ceased to work during the year.
	Parry and Co.'s Coffee-curing Establishment at Calicut.								
Neilgherry ...	Ashley Works, Coonoor	Timber Mills ...	...	...	......	...	...	...	Outturn and value for the first two are not given by the proprietors, Messrs. Groves and Co.

STATISTICAL RETURN OF INDUSTRIES IN THE PRESIDENCY FOR 1883—(*Continued*).

District.	Name of Work or Factory.	Nature of Industry.	Average number of Persons employed daily. Throughout the Year.	During a special Working Season. Number.	During a special Working Season. Months.	Capital (if a Joint Stock Company).	Annual Outturn. Quantity.	Annual Outturn. Value.	Remarks.
1	2	3	4	5	6	7	8	9	10
						RS.	LB.	RS.	
Neilgherry ...	Ashley Works, Coonoor	Iron Works ...	80	...	......	1,50,000	...	...	
		Wheat Mills ...	...	...	......	...	57,600 lb. of bread.	7,200	
South Arcot ...	Messrs. Parry and Co.'s Sugar Factory at Nellicooppam.	Sugar manufacture.	323	...	......	...	Not given.		The Agent of Messrs. Parry and Co. has not given any information as to outturn and value.
	Messrs. Parry and Co.'s Sugar Factory at Tiroovennanallore.	Do. ...	125	...	......	...	Do.		
	Sugar Factory at Iroovailiputt ...	Do. ...	46	...	......	...	85,000	8,500	
South Canara ...	Basel Mission Weaving Establishment (Balmatta).	Manufacture of cotton napkins, cloths, &c.	112	...	......	...	yds. 40,000	32,400	
	Boloor Coffee Works	Coffee curing ...	...	450	January to March ...	...	lb. 638,351	2,84,978	
	Alston and Co.'s Coffee Works at Mangalore.	Do. ...	...	275	January to May ...	...	1,272,563	5,00,660	
	Jappoo Coffee Works	Do. ...	...	650	Do. ...	...	1,650,880	7,37,000	
Tinnevelly ...	Tuticorin Cotton Press Company (Limited).	Cotton cleaning, pressing and shipping.	32	154	From March to December.	£ 25,000	5,198,700	10,39,740	The capital was entered as £20,000 last year, which the company now say was an error.
	Tuticorin Kemp Welches' Press ...	Pressing cotton into bales.	4	24	Do. ...	...	6,503,400	13,47,253	
	Tuticorin Fort Press or (Darley, Butler and Company's Press, Limited).	Do. ...	30	65	January to December.	...	5,097,300	10,39,848	
	Adderley's Press (purchased in June 1883 by new Berar Company, Limited)	Do. ...	32	30	April to December...	6¼ lakhs.	{ 900,000 4,836,300	1,80,000 9,67,260	
	A. and F. Harvey Company at Viroothooputty.	Do. ...	55	116	April to September.	...	6,141,600	12,40,603	
	Volkart's United Press Company (Limited).	Do. ...	27	30	March to November.	4,50,000	5,290,200	10,58,000	
	The Southern India Press Company (Limited) at Viroothooputty.	Do. ...	33	65	April to September.	* 60,000	3,516,000	7,10,232	* The company's transactions were limited in 1882.
Trichinopoly ...	Framjee and Co.'s Cotton Press ...	Do. ...	7	80 besides 12 children.	The number of working days was 57, between March and December.	...	442,500	70,800	

APPENDIX No. XC.

LOCAL VARIETIES OF WEIGHTS AND MEASURES ARRANGED BY DISTRICTS.

(1) INTRODUCTION.

Weights.—As regards these it is to be observed that the actual weights in use are very rough, and differ more or less from any standard. European mercantile usage has also forced up the natural values of the weights judged by a tolah standard so as to accommodate them to an avoirdupois standard. Thus in the mofussil the viss is strictly 3·0857 lb. avoir., the maund = 24·6857 lb., and the candy = 493·714 lb. But in mercantile usage these three weights are considered $3\frac{1}{8}$, 25, and 500 lb. respectively. Similarly the pucka seer is generally considered 2 lb., though its weight is usually intended to be 80 tolahs, or 2·057143 lb. The star pagoda was 52·56 grains by mint standard. The more ancient pagoda of the Presidency used as a unit of weight may be considered 54 grains, that of the Southern Provinces being slightly in excess. The pagoda coins other than the star pagoda weighed about $52\frac{1}{2}$ grains. The dub of the Northern Provinces as a unit of weight may be considered 216 grains. In the following remarks, when the unit is the rupee, the Company's rupee or tolah of 180 English grains is meant. Originally the rupee of Native mints was about 175 grains, and the tolah varied from 182 to 186 grains.

Linear Measures.—The linear measure of India is almost everywhere founded on the length of the human fore-arm; called in Hindostany haut, in Tamul moolum, and in Teloogoo mooda. It is said to be the length from the elbow joint to the tip of the finger of any tall man chosen as a standard. The term is translated cubit, but it invariably exceeds the 18-inch cubit of England. In this Presidency it averages about 19·7 inches, varying from $19\frac{1}{4}$ to 20. In the southern part of the Presidency the Tamul word adee, translated foot, is known as a linear measure; this also is said to be the length of the foot of a full-sized man, and averages $10\frac{1}{4}$ inches. Similarly to the above the ancient linear measures of the Egyptians, and Jews, and Greeks, were taken from a unit representing the human arm or foot. The "cubit" was, as in India, the fore-arm, i.e., from the elbow joint to the tip of the long finger. The cubit was sub-divided into two "spans" or six "hand-breadths" (palms) or twenty-four "finger-breadths" (digits). The Jewish "rod" was six cubits. Several values have been assigned to the Jewish cubit, varying from 20 to 21 English inches; so that it assimilated very closely to the Indian cubit. The guz, translated yard, is known all over India, but not so extensively as the cubit. It is supposed to have been introduced by the Mahomedans, but on what standard it was founded is not known. It varies exceedingly in different localities, and in the same place its length sometimes varies with the length of the article measured. The guz of Acbar, called the Ilahee guz, was introduced by him into Northern India in the sixteenth century, and was equivalent to $33\frac{1}{2}$ English inches. In this Presidency it varies from 26 to 39 inches. It is, however, for the most part superseded by the English yard measure. In the districts of Madura and Tinnevelly, the tutcha-cole or artificer's stick is 33 English inches. The same measure is called in Trichinopoly tutcha-moolum. In the south of India the guz is sub-divided into 24 ungoolams, each of which, taking the Tanjore guz of $33\frac{1}{2}$ inches, is $1\frac{4}{10}$ of an English inch. The term ungoolam in Tamul signifies the thumb; and in the above measure it is the distance from the thumb joint to the tip of the nail. This ungoolam is considered equal to 2 virulcaday, or finger-tip-breadths. The term 'ungoolam' is however sometimes used to mean the virulcaday or finger-breadth or digit itself, that is to say the 24th part of a cubit (about ·82 inch) according to the following table:—

4 fingers' breadth	=	1 palm.
12 fingers' breadth	=	1 span.
24 fingers' breadth	=	1 cubit.
4 cubits	=	1 fathom.

The ungoolam has also the value shown in the foot-note "Madras Linear Measure with incorporation of the English yard," in the article on Time, Money, Weights and Measures, in vol. I. The tutcha-moolum of Trichinopoly is sub-divided into 24 ungoolams. The bauham, translated fathom, in Salem and Coimbatore averages 6 feet $4\frac{1}{2}$ inches, and in Goontoor 6 feet $6\frac{8}{10}$ inches. It is generally, but not always, sub-divided into 4 cubits. The bauham or fathom is also used by native seamen on the lead line. For distances of greater length, there is no defined measure in Southern India. A naulivaly in Tamul is derived from valy a road or way, and nauly a period of time which is the 60th part of the 24 hours, or 24 English minutes, generally known as an "Indian hour." The distance that is usually walked in this time is called a naulivaly, and is about $1\frac{1}{2}$ English miles or somewhat less. Seven naulivaly make a kautham of about 10 miles. The coss is generally considered 2 English miles, but the table is as follows:—4 cubits = 1 tundam or staff. 2,000 tundams = 1 coss. Taking the cubit at $19\frac{1}{2}$ inches, the coss would be 2·46 miles. It will not be necessary to refer further to linear measures under the heads of the different districts.

Land Measures.—In Southern India, it appears to have been the custom in ancient times to name an area of land after the quantity of grain that it was thought would sow it, or the quantity it was thought it would produce. Thus for instance, a candy of land was as much as would produce a candy of grain, and this was by estimate, and not by actual measurement, or if a measured area was considered a candy in one village, it would not be so in the next. Even where there was some defined superficial measure, commencing from a rod square, the number of cubits to the rod varied, though the term by which the square rod was known was the same. Reference may be made to the remarks for the Kistna district. In some districts of the Presidency the land measure of the present day is well defined, as in the case of the cawny and the acre. The dimensions of the former were determined and introduced by Royajee the celebrated Diwan of Mahomed Ally, or Wallajah, Nawab of the Carnatic. Wherever the cawny exists, it is now 57,600 square feet, or 1·322314 acres, except in some of the talooks of Trichinopoly. The English acre was introduced by Sir T. Munro into Bellary and Cuddapah, during the survey of 1802-1806, and in 1842 it was introduced on a similar occasion into Kurnool. In both cases the chain of 33 feet was used instead of Gunter's chain of 66 feet, so that the square chain was $\frac{1}{40}$th acre, thus introducing an inconvenient sub-multiple, when a simple decimal sub-division might have been adopted, as will be noticed further on. The term goonta or gooly denotes the land measure next below the maximum of the place; thus the pootty of Rajahmundry, the cutty of Masulipatam, the cootchel of Goontoor, the goortoo of Nellore, the cawny of Chingleput, the acre of Bellary and the mah of Tanjore are all sub-divided into goontas (coontas) or coozhies, (goolies). It should be observed therefore that the goonta, &c., of one district is not at all necessarily the same as the goonta, &c., of another.

Grain Measures.—In these struck contents are rarely referred to, as it is only by heaped measure that the various multiples are formed. It often happens that several measures bearing the same name in the same place have different struck contents; but all coincide when heaped. The contents in cubic inches of any heaped measure, when the weight of that heaped measure is given, and the grain used is rice, is easily found within practical limits; and it is to be observed, that it is not by any calculation of capacity, but by its weight of rice when heaped, that the natives of the country generally arrange their standard. Sometimes cooltee or horse-gram, or 9 sorts of grains mixed, form the standard instead of rice. It has been found from many trials that raw rice averages 113 tolahs'

weight to 100 cubic inches, (the Northern rice about 111, and the Southern 114), so that if a measure is said to be, say, 80 tolahs when heaped with rice, it is equivalent to a struck measure of about 69 to 71 cubic inches. The weight of cooltee varies from 114 to 118 tolahs to 100 cubic inches, according as it is old or new; the former being lighter. Mixed grain averages 116 tolahs to 100 cubic inches. But when measures are heaped (as they almost always are) the contents are much the same, whether they are rice, cooltee, or mixed grain, for the two last do not stand so high on the heap, as rice.

Diameter inches.	Tolahs weight of rice in the heap.
2	2
2¼	2½
2½	3
2¾	3½
3	4
3¼	4½
3½	5
3¾	6
4	7
4¼	8
4½	9
4¾	11
5	13
5¼	15
5½	18
5¾	21
6	24
6¼	28
6½	32
6¾	36
7	40
7¼	44
7½	48
7¾	52
8	56
8¼	60
8½	65
8¾	70
9	75
9½	87
10	100

The weight in tolahs of the extra rice heaped on measures, according to their diameters, is given in the margin as found by experiment. This is liberal heaping; for ordinary bazaar heaping, which is little more than running over, half the value given in the margin may be taken.

When the term "Madras measure" is used in the district statements below, it means the customary measure or puddy of the town of Madras, of 104 cubic inches, holding 117 tolahs' weight of rice when struck, and 120 (1½ seers) when filled to running over;—and 128 when liberally heaped. When the term "Madras garce" is used in the mofussil, it generally means 4,800 pucka seers of 80 tolahs' weight of rice (heaped) each. This is correct if the Madras measure is used running over, but not heaped. If it is heaped to a weight of 125 rupees, the equivalent would be 5,000 seers. What is called the "Standard Government measure" is that of 100 cubic inches, proposed as a standard by Government in 1846, but never used except by the Commissariat. See under the head of Madras.

Liquid Measures.—The vessels used for liquid measure are generally the smaller grain measures; they are supposed to contain the weight of liquid that the measure denominates; for instance a seer of oil is supposed to be a seer weight of it. Oil, ghee, and milk are the only articles for which liquid measures are used. Spirits, &c., are usually sold in English bottles. In the town of Madras the gallon is the old wine gallon of 231 cubic inches, and the "dram" is 40th or 5·775 cubic inches.

(2) ARCOT, NORTH.

WEIGHTS.

The ordinary table is as follows:—

3 tolahs = 1 pollum.
8 pollums (or 24 tolahs) = 1 cutcha seer.
5 cutcha seers (or 120 tolahs) = 1 viss.
2 viss (or 240 tolahs) = 1 dhadiyam.
4 dhadiyams (or 960 tolahs) = 1 maund.
20 maunds = 1 candy.

The pucka seer of Chittore and Vellore is 72 tolahs. The pollum of the goldsmiths is said to be 10 pagodas' weight, and actually weighs about 2·8 to 2·9 tolahs. The viss is sometimes estimated at 400 ikkairy pagodas, sometimes 400 bahaudry, or 400 star pagodas. The average of these is 52·7 grains to the pagoda which would make the viss 117 tolahs; but on trial it is found to be from 119 to 121 tolahs, so that 120 tolahs, as in the table above, may be assumed. A viss however of 126 tolahs is also in use in Arcot, Chittore, Vellore.

The weights employed as standards by the Government stamping establishment are the pollum and viss. The pollum is the unit of weight. The tolah is taken to be the same as the Government rupee of 180 grains. The weights taken as the standard are uniform throughout the district.

LAND MEASURES.

The cawny was adopted in measuring the lands previous to assessment about 1801. Thus:—

1 kole or rod = 24 feet.
1 square kole = 1 coozhy, or goonta (= 576 square feet).
100 coozhies or goontas = 1 cawny (= 57,600 square feet = 1·322314 acres.

In the Revenue accounts, the cawny is sub-divided into annas or 16ths, and these into chittahs, or 16ths of an anna. 1 anna = 3,600 square feet and 1 chittah = 225 square feet.

The square or land measure used in the Calastry Zemindarry is called 'Gorroo,' the extent of which varies as follows:—(1) In Aroor, Cunnambaukum, &c., villages, the Gorroo ≡ 35 goontas, each goonta being a rope of 84 country feet; (2) In Soorapoody, &c., villages, the Gorroo = 40 goontas, each goonta being a rope of 72 country feet; (3) In Patharivaid, &c., villages, the Gorroo = 56 goontas, each goonta being a rope of 64 country feet; (4) In Soorapoondy, &c., villages, the Gorroo = 25 goontas, each goonta being a rope of 48 country feet. The country foot here alluded to is said to be the length of the foot of some tall man chosen as a standard in the locality and is not therefore uniform, and on actual measurement the ropes of 84, 72, 64 and 48 country feet were found to be 79¼, 66, 60½ and 42 English feet or 1 country foot = 11·32, 11, 11·14 and 10·5 English inches respectively. The actual extent of a gorroo in each of the above four cases is therefore found to be 5, 4, 4·66 and 1·01 acres respectively.

The goonta of the Carvetnugger Zemindarry is a square chain of 60 country feet in 'unirrigated' land and 56 country feet in 'irrigated.' Assuming the country foot at 10·2857 inches as in Chingleput, the former goonta would be ·0607 acre and the latter ·053.

In the Cungoondy Zemindarry, the land measure is the extent which a certain quantity of seed will sow. It is said that an area of 'irrigated' land requiring 63 Madras measures or 75 local measures to sow it, is a cawny; and an area of 'unirrigated' land requiring 15¾ Madras measures or 18¾ local measures to sow it, is also a cawny; the areas being supposed to be the same. The Madras 'measure' referred to is probably the 'customary' measure (puddy) of the Madras bazaar, having a struck capacity of 105 cubic inches, and holding when struck about 117 tolahs' weight of rice, and when heaped about 128. The local measure or puddy is one holding 80 tolahs of paddy when heaped.

The recent survey has used only the English acre and its corresponding scale.

GRAIN MEASURES.

When this district was assessed for land revenue in 1806, the usual grain measure for account was the 'cullum,' which was then said to be about 40 'Madras measures.' The Madras measure referred to was said to contain 120 tolahs' weight of gram, but whether struck or heaped, is not mentioned; probably the latter.

In reply to a circular of 1821, it was stated that 'the cullum' was generally estimated at 30 Madras puddies, and sub-divided into 12 tooms. The puddy transmitted as a model, at that time, had a capacity of 108 cubic inches, and held 126 tolahs of cooltee or horse-gram when struck, and 140 when heaped, but from reference to the original talook reports from the Tahsildars to the Collector, it appears that there was no definite standard for the puddy. In Chittore it was reported as '120 rupees' weight,' in Vellore as 140, and in other places from 128 to 136. Whether heaped or struck is not stated; most probably the weight of the heaped measure, in cooltee, which grain is used in North Arcot as a standard.

In 1838 the Collector of the district endeavoured to introduce a uniform puddy to contain, when heaped, 150 tolahs' weight of cooltee.

The present table is generally as follows:—

124 tolahs' weight of rice = 1 puddy slightly heaped.
8 puddies = 1 mercaul (heaped.)
12 mercauls = 1 cullum.
400 mercauls or 33⅓ cullums = 1 garce.

The toom or mercaul however differs in different places:—at Sholinghur, Poloor, Arcot and Arnee, it is

2¼ puddies (heaped); at Trivettore, 2⅔ puddies; at Wandiwash, 2⅝ puddies; at Tiroovallam and Chittore, 3 puddies; at Vellore and Tripatty, 4 puddies; at Vencatagherrycottah, 8 puddies.

The 'royajee' mercal varies from 2½ to 2¾ puddies, but holds on an average 400 rupees' weight of cooltee, which agrees with the royajee mercaul of South Arcot. In the old returns, however, it is stated that it varies from 350 to 360 rupees' weight, so that perhaps 2½ puddies is near the truth.

The measure employed as a standard by the Government stamping establishment is in every case the puddy. The puddies of eighteen stations have been tested with the test glass and their cubic capacity has been found to be as follows :—

Stations.	Struck contents in ounces of water.	Struck contents in tolahs of rice.	Contents in tolahs of rice when heaped.	Struck capacity in cubic inches.
Arcot	78⅜	149	160	135·82
Arnee	76½	146	155	132·57
Calastry	79	151	162	136·90
Chittore	74	141	150	128·24
Chundragherry	76½	146	157	132·57
Cungoondy	48½	92	99	84·05
Goodiyattam	92¼	176	187	159·86
Maderpauk	34⅛	65	72	59·14
Narrainavaram	37½	71	77	64·98
Poloor	77	147	156	133·44
Poonganore	35½	68	74	61·52
Pulmanair ... ... } Vencatagherrycottah ... }	36¾	70	77	63·69
Tripatty	81¼	155	166	140·80
Trittany	38⅝	74	80	66·94
Vellore	75½	144	153	130·84
Wallajah	78	149	160	135·17
Wandiwash	79	151	160	136·90

There are no specific orders for taking these standards, but customary usage has been followed.

(3) ARCOT, SOUTH.

WEIGHTS.

The ordinary table is as follows :—

3⅛ tolahs = 1 pollum.
8 pollums (or 25 tolahs) = 1 cutcha seer.
5 cutcha seers (or 125 tolahs) = 1 viss (3·2143 lb., avoir.)
6¼ cutcha seers (or 156¼ tolahs) = 1 took.
8 viss (or 1,000 tolahs) = 1 maund = (25·7143 lb., avoir.)
20 maunds = 1 candy (514·286 lb., avoir.)

This, it will be observed, gives 3·2143 lb. to the viss, instead of 3·0857 lb., or 120 tolahs as usual in the districts.

In commercial usage, the viss is considered 3·125 (3⅛) lb., as in the town of Madras; the maund 25 lb.; and the candy 500 lb. The pollum used by the goldsmiths is 524 grains or 3 tolahs' weight.

The weights taken for standard by the Government stamping establishment are the pollum and viss, determined by placing them in the scale against rupees, half-rupees, &c.

LAND MEASURES.

The Madras cawny is the only land measure now known with the following table :—

1 rod = 24 English feet.
1 rod square = 576 square feet, or coozhy.
100 coozhies = 57,600 square feet, or cawny = 1·322314 acres.

In the native accounts the cawny is often sub-divided into annas, or 16ths, and ¼ anna or 64ths. The 64th being called a காணி, which is the same word by derivation and equivalent to 900 square feet. The cawny is also often sub-divided into annas or 16ths, of 3,600 square feet each, and these again into pies or 12ths of 300 square feet each.

Ancient sunnuds show that the rod or kole was sometimes 72 feet (probably country feet of 10·3 inches), but it is not certain that the old cawny was one hundred of these square koles.

In setting out or measuring sites for building, the area is generally expressed in square feet.

GRAIN MEASURES.

The following are the exact dimensions of the principal measures :—

—	Inches.		Cubic inches.	Total weight of rice when struck.	Total weight of rice when heaped.
	Diameter	Depth.			
Bazaar puddy ...	4½	7	112	126	135
Royajee puddy or 'seer'	...	...	70	81	90
Royajee mercaul (4 Royajee puddies).	...	...	...	...	360
Half mercaul ...	8	8⅓	440	500	590

The bazaar puddy is often called a 'Madras measure,' but the latter (i.e., the 'customary' measure) holds when well heaped only 128 tolahs of rice, or 5 per cent. less than the bazaar puddy. The Madras 'customary' half mercaul holds when heaped nearly 520 tolahs' weight of rice; the South Arcot measure of the same name is of doubtful capacity.

The royajee measures were introduced about A.D. 1770 by the Revenue Minister and Renter of South Arcot in the time of the Nawab Wallajah (Mahomed Ally). 1½ royajee puddies heaped or 1½ × 90 = 135 are generally considered equal to the heaped bazaar puddy; and 4 royajee puddies heaped = 1 heaped pucka royajee mercaul of 360 tolahs' weight of rice; but trials with different mercauls have given 380 tolahs of rice struck and 405 heaped, and this is called the 3 'measure' (i.e., 3 bazaar puddies) mercaul. In Vriddhachellam there is a cutcha royajee mercaul, containing when heaped 174 tolahs' weight of rice.

The most usual grain measure of account is the 'cullum' which is of two kinds. (1) The goondoo cullum, used in the town of Cuddalore, and so called after the goondoo or boundary hedge (formerly a defence against cavalry); and (2) the royajee cullum. The latter is again subdivided. Thus :—

	Tolahs' weight of rice.	By experiment.
The 'goondoo' cullum of 24 bazaar puddies =	3,240	3,260
'Royajee' cullum of 32 bazaar puddies =	4,320 }	4,296
or		
12 Royajee mercauls or 48 Royajee puddies =	4,320 }	4,340
'Royajee' cullum of 36 bazaar puddies (of the western talooks) =	4,860	4,836

The royajee cullum is that in use in the talooks, but is of two capacities as above shown. The assessment of 1805 was fixed with reference to the price per cullum of 32 bazaar puddies, and as the puddy was supposed to be the same as the Madras 'customary' puddy, the Madras garce has always been reckoned at 100 cullums; but that is about 7 per cent. too much or 430,000 rupees' weight instead of 400,000.

A 'vullum' of 4 bazaar (or so called company's) puddies is still in existence, and is called half mercaul; but its capacity varies in every talook. Generally it contains, when heaped with rice, about 590 tolahs' weight.

The grain measure taken as standard by the Government stamping establishment is the puddy held to contain 140⅝ tolahs of rice when fully heaped.

LIQUID MEASURES.

The smaller grain measures are used for milk, ghee and oil; but oil is often sold wholesale by weight.

(4) BELLARY.

WEIGHTS.

The old goldsmiths' weights are as follows :—

8 gooriginja, or 2½ canteroy fanams	= 1 mausa (14·6 grains)
9 canteroy fanams	= 1 bahaudry pagoda (52·8 grains).
30 canteroy fanams	= 1 toolaum or Arcot rupee (176⅓ grains).
24 Arcot rupees	= 1 cutcha seer.

For other articles the weights were 5 seers = 1 punchseer, 8 punchseers = 1 maund.

In 1812 the Collector, Mr. Bruce, established a cutcha seer of 21 tolahs' weight; 12 seers (or 252 tolahs) = 1 dhadiyam; 48 seers (or 1,008 tolahs) = 1 munoovoo or maund (25·92 lb.); 20 maunds = 1 candy (518·4 lb.). These are the weights now generally in use. The term punchseer is still retained, but being ⅛ maund it is now 6 instead of 5 seers.

The weights taken for standard by the Government stamping establishment are for coarse articles, iron weights with the arapow of 2⅝ tolahs as unit. The local weights for gold and silver are not tested by the Government stamping establishment.

LAND MEASURES.

It is not known what the ancient measure was. It was probably a mere estimate of the extent which a quantity of seed would sow, as in the adjoining district of Kurnool.

Sir Thomas Munro caused the cultivable lands of this district as well as those of Cuddapah to be measured field by field in 1804. The chain used was 33 feet, or ½ that of Gunter's.

1 chain square = 1 goonta (1,089 square feet).
40 goontas = 1 acre (43,560 square feet).

In the native accounts, the goonta is sub-divided into annas or 16ths, and even into 64ths.

GRAIN MEASURES.

The ancient grain measure of this part of the country (as also in the Southern Mahratta districts and Mysore) is a vessel which will, when moderately heaped, contain 112 rupees' weight of nine sorts of grain mixed. The rule is to mix together 14 rupees' weight of each of the grains named below; then weigh out 112 rupees' weight, and the vessel, which will when heaped hold this quantity, is a 'timmaup' or navadhaunyam seer:—

English Names.	Teloogoo Names.
Rice.	Biyyam.
Horse-gram.	Oolavaloo.
Bengal gram.	Shanagaloo.
Green gram.	Pesaloo.
Black gram.	Minoomooloo.
Dholl.	Candooloo.
Red bean.	Anoomooloo.
Gingely seed.	Noovvooloo.
Wheat.	Godoomooloo.

The average weight of 100 cubic inches of mixed grain is 116 tolahs.

The timmapoo has however been of late years superseded by the pucka seer, which is a measure containing when heaped 84 tolahs of mixed grain. This corresponds with the trials made in 1852, in which the seer was found to contain on an average nearly 86 tolahs of rice when heaped, (100 cubic inches of rice weighing about 113 tolahs). The dimensions of the seer vary. The 'long' seer being 7¼ inches deep, and 3½ inches diameter, or about 70 cubic inches; and the 'short' seer 6 inches deep, and 3¾ inches diameter, or 66 cubic inches. But as the diameter of the 'short' seer is greatest, they both when heaped held about 86 tolahs of rice, or 84 of mixed grain. The seer is sub-divided into halves, quarters, and eighths, called respectively 'ardha-seer,' 'pow-seer,' and 'navatauk.'

The ordinary country table of grain measures is as follows:—

84 tolahs of mixed grain heaped = 1 seer.
4 seers (or 336 tolahs) = 1 moonta.
3 moontas = 1 mercaul.
16 moontas = 1 toom.
20 tooms = 1 pootty.

Another table is as follows:—

84 rupees' weight = 1 seer.
4 seers = 1 solga.
4 solgas = 1 mauna.
4 maunas = 1 balla.
4 ballas = 1 colaga.
5 colagas = 1 punchaca.
4 punchacas (or 4,30,080 rupees' weight) = 1 candy (110 cwt).

There is also a varying 'giddana' measure, ranging from 26 to 105 tolahs.

The grain measure now taken as standard by the Government stamping establishment is a seer held to contain 86 tolahs of rice when fully heaped.

LIQUID MEASURES.

The smaller grain measures are used for milk, especially the seer, which contains about 108 tolahs' weight, (in Adony about 105).

Oil is sold by the seer of 21 rupees' weight, and the maund of 1,008 rupees' weight.

The ryots sell ghee to the merchants by measure, by the savahseer of about 38 tolahs' weight.

In the bazaars ghee is sold by weight, the same as oil: and arrack is sold by the dram (often called seer) of 7¼ tolahs' weight.

Toddy is sold in earthen vessels or moontas of 77½ tolahs' weight content. In Adony these are of 52½ tolahs.

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(5) CANARA, SOUTH.

WEIGHTS.

The ordinary table is as follows:—

24 tolahs or rupees = 1 seer.
1⅔ seers = 1 rautal.
28 rautals (46⅔ seers) = 1 maund.
20 maunds = 1 candy.

Besides the ½ and ¼ seer and rautal a ⅛ maund known as "punchseer" and a ¼ maund called "dhaday" are also in use.

As an exceptional case a maund of jaggery consists of 40 seers only.

The weights used in weighing gold are:—

4 rice grains or veesa = 1 gooriginja or hauga.
2 gooriginjas = 1 manjoty or adda.
2 manjoties = 1 hana.
9 hanas = 1 pagoda or varauha took.
3 pagodas & 3¾ hanas = 1 tolah or rupee.

LAND MEASURES.

It has been the practice of the country to estimate the area of a portion of land by the quantity of seed required to sow it. This quantity varies with the quality of the land and the variations of the local seed measure, so that great diversity exists.

Several experiments have been made by actual measurement to obtain such an average as may represent in defined terms what is meant by a moody or extent of land requiring a moody of 60 seer measures (of 80 tolahs' weight in rice) of seed to sow it. In the "byle" or first sort low level land, the average moody is ·912 acre. In "majal" or second sort land it averages 1·072 acres, and in the "bettoo" or third sort high level land 1·116 acres, so that one acre may be assumed as the average equivalent of the moody. In some places the moody is 56, 50, 48, 45, 40 and 35 seers and in those localities the corresponding quantity of land is of course less than an acre.

Lands measured under orders of the revenue authorities have however been measured in acres and goontas or 40ths as in Bellary; except in the case of lands received by grant from Government for building on prior to 1856, in which case the measure was made to correspond with that of Madras, namely cawnies and grounds.

GRAIN MEASURES.

80 tolahs of rice struck = 1 seer.
14 seers (struck) = 1 kulsy or kulsighey.
3 kulsies (struck) = 1 mooda.
42 moodas = 1 corjy.

½ seer and ¼ seer (pow) measures are also used.

The seer of 80 tolahs is that now taken as the standard by the Government stamping establishment; but the old seer measures in different parts of the district vary from 79 to 83 tolahs.

LIQUID MEASURES.

12 rupees' weight of oil = 1 coodtay.
2 coodtays = 1 seer.
4⅔ seers = 1 cootty.
4 cootties = 1 caulauda.
2½ caulaudas = 1 maund.

½ and ¼ coodtays as well as ½ and ¼ maund measures are in use. In Oodipy and Coondapore talooks a "siddy" of 18 rupees is generally used.

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(6) CHINGLEPUT.

WEIGHTS.

3 tolahs	= 1 pollum.
8 pollums (or 24 tolahs)	= 1 cutcha seer.
40 pollums (or 120 tolahs)	= 1 viss (3·0857 lb. avoir.)
50 pollums (or 150 tolahs)	= 1 took.
5 viss (or 600 tolahs)	= 1 toolaum.
8 viss (or 960 tolahs)	= 1 maund (24·6857 lb. avoir.)
20 maunds	= 1 candy, or baurum.

There is also a pucka seer in use of 72 tolahs.

LAND MEASURES.

The measure of land in local use was formerly the cawny.

The cawny was sub-divided thus :—

28 adees or country feet = 1 kole (24 English feet).
1 square kole = 1 coozhy = 576 square feet.
100 coozhies = 1 cawny = 57,600 square feet = 1·322314 acres.

In this table the adee = 10·2857 English inches.

The cawny is the standard land measure of the country formerly under the rule of the Nawabs of the Carnatic. Mr. Ellis, in his paper dated 1814, on mirassy right, speaks of an ancient Hindoo cawny of 172,000 square feet, and of another known as Conairy Royer's cawny, where the kole was 36 feet; but he does not state if these are English feet, or if 100 square koles made the cawny.

The munny or 'ground,' or 24th part of a cawny (see Madras) is also used in Chingleput for sites of buildings. The cawny is also sub-divided in the vernacular accounts into annas or 16ths, of 3,600 square feet each, and these again into pice or 12ths, of 300 square feet each.

In Buchanan's journey (1802) vol. I, p. 6, he states that in the jagheer (the usual name for the Chingleput district, having been a jagheer from the Nawab of Arcot in 1763), the adee or foot is 10·4562 inches. Thus :—

24 adees square = 1 coozhy.
100 coozhies = 1 cawny (43,778 square feet).

But out of what is called 'charity' the rod was made 26 adees and the resulting 'customary' cawny 51,375 square feet.

Before the lands of the district were re-measured in 1766 there was a 'mamool' or 'customary' cawny, which in many of the agraharams or Brahmin villages was generally $\frac{3}{4}$ of the royajee or standard cawny, whilst in the munnavaid or shoodra villages it was (where it was introduced at all) some 20 per cent. over the standard.

At the present day the acre is superseding these measures, being used in the village registers and puttahs of the Government.

GRAIN MEASURES.

In the year 1800, it was officially reported that the 'cullum' was 12 Madras mercauls, (the mercaul being most probably the 'customary' one of 832 cubic inches struck). In the return to a circular of 1821, it was again reported that the weights and measures were the same as those in Madras, having been introduced by Mr. Coleman the Judge in 1810 A.D. But in 1850 it was reported that the Government standard 'measure' (100 cubic inches) was in use. This appears to have been an error, for when trials were made in 1852 it was found that the 'measure' or puddy was on an average 107 cubic inches, but being of narrower diameter than the Madras 'customary' puddy of 104 cubic inches, it held about the same when heaped, or 120 to 128 rupees' weight (see Madras). The old table is—

124 tolahs' weight of rice	= 1 puddy slightly heaped.
8 puddies	= 1 mercaul (heaped).
12 mercauls	= 1 cullum.
400 mercauls or $33\frac{1}{3}$ cullums	= 1 garce.

The normal contents of the puddy or measure now in use varies from 120 tolahs (about 107 cubic inches) in the Sydapett, Trivellore and Ponnairy talooks to 140 tolahs (118 cubic inches) in the Chingleput and 150 tolahs (128 cubic inches) in the Madrantacam and Conjeeveram talooks. Its diameter is 4·2 inches throughout except in the last mentioned talook where it is 5·5 inches.

The 'pucka seer' again was formerly used as a grain measure, and is said to be, when heaped with rice, $\frac{2}{3}$ of the Madras 'customary' measure heaped, or 80 tolahs of rice when heaped. This would agree with the Madras 'measure' when only just topped and running over, but not heaped. (See Madras.)

The old 'royajee' mercaul and cullum, called after the celebrated diwan and renter of the Nawab Wallajah, were respectively $\frac{1}{3}$ of the present mercaul and cullum.

LIQUID MEASURES.

The 'puddy' used in grain measure, with its submultiples of eighths or ollocks, is used for milk, oil and ghee; but the last two are often sold by weight.

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(7) COIMBATORE.

WEIGHTS.

The weights for gold are as follows :—

9 veeroye fanams (of 5·86 grains each) = 1 bahaudry pagoda (52·7 grains).
30 veeroye fanams = 1 Arcot rupee (175·8 grains).

But at present the rupee of 180 grains is sub-divided into $30\frac{1}{2}$ fanams' weight.

The weights for other articles are as follows :—

8 tolahs	= 1 pollum.
3 pollums	= 1 cutcha seer.
100 pollums	= 1 toolaum (20·57 lb.).
5 seers	= 1 viss.
8 viss	= 1 maund.
10 maunds	= 1 pody or bullock load (246·85 lb.).
2 podies	= 1 candy (493·7 lb.).

The rautal of 40 tolahs is also in use in some places, and considered 1 pound avoirdupois, though the pound is really 38·89 tolahs.

A pollum of 3 rupees' weight is in use for drugs, and a maund of 1,000 rupees' weight (or 25·71 lb.) is also in use.

Cotton wool is sold by the 'took' of 50 pollums.

LAND MEASURES.

The acre is the only land measure known in the district since the introduction of the survey and settlement. The English table is used as follows :—

100 links	= 1 chain.
1 square chain	= 100 × 100 or 10,000 square links.
10 square chains	= 10,000 × 10 or 1,00,000 square links = 1 acre.

GRAIN MEASURES.

The grain measure used as a standard by the Government stamping establishment is the pucka puddy containing 144 tolahs' weight of rice when liberally heaped. This is in use in all the talooks except Dharapooram, Oodamalpett and Collegaul. In the first two talooks, the pucka puddy contains 160 tolahs of rice liberally heaped and in the third 130 tolahs' weight of rice.

The ordinary table of higher measures is as follows :—

All liberally heaped.	2 small puddies	= 1 pucka puddy.
	1 vullum or balla	= 2 pucka puddies.
	$1\frac{1}{2}$ vullums	= 3 pucka puddies = 1 mercaul (In use in the Caroor talook).
	12 mercauls	= 1 cullum (In use in the Caroor talook).
	4 vullums	= 1 mercaul = 8 pucka puddies.
	16 vullums	= 1 modah = 32 pucka puddies.
	40 ballas	= 1 cundagam.
	2 modahs	= 1 shalagay = 64 pucka puddies.
	3 shalagay	= 1 pody or bullock load = 192 pucka puddies (about 710 lb).
	24 shalagay	= 1 candy.

The shalagay of Coimbatore is of two different quantities 60 and 72 pucka puddies respectively, the latter being mostly confined to the measurement of puddy; whilst that of Dharapooram is 80. In Suttimungalam it is 64.

In Collegaul the toom or colagam (= $3\frac{1}{4}$ pucka puddies of 130 tolahs) is in use. The aliquot parts of small puddies are also in use throughout the district.

LIQUID MEASURES.

The pucka puddy and its submultiples are used for measuring milk, oil, and ghee. A coodum or jar is $6\frac{5}{8}$ pucka puddies, and a pody is 8 coodums = 53 pucka puddies.

(8) CUDDAPAH.

WEIGHTS.

The ordinary table is as follows :--

3 tolahs	= 1 pollum.
8 pollums	= 1 cutcha seer.
5 seers	= 1 viss.
10 seers	= 1 dhadiyam.
4 dhadiyam, or 8 viss	= 1 maund.
20 maunds	= 1 candy.

The ⅛ seer or arapow, ¼ seer or pow, and ½ seer or ardha seer are also in use in this district. In the sub-division for jaggery, soap-nut or sheekauya and tamarind 6 seers of 24 rupees' weight are calculated for 1 viss. The seer of 20 rupees' weight is also in use with its sub-divisions on the above calculation.

The maund of cotton is said to be 1,045 rupees' weight. The cuntlam or bullock load of cotton is in some talooks 15 maunds if clean, or 60 if not cleaned.

LAND MEASURES.

The acre was introduced by Sir T. Munro.

GRAIN MEASURES.

The grain measures as per the following table are in use in this district :—

2 arapows	= 1 pow.
2 pows	= 1 ardha seer.
2 ardha seers	= 1 seer.
20 seers	= 1 toom.
20 tooms	= 1 pootty or candy.

The seer heaped = 132 rupees' weight.

This is a universal standard in the district for sale.

The toom and pootty vary in some places as shown below :—

Cuddapah	... 480, 440, 500, and 520 seers.
Jummalmudoogoo	... 500 seers.
Kadiry	... 320 seers.
Madanapully	... 320 seers.
Poolivendla	... 500 seers.
Proddootore	... 500 seers.
Royachoty	... 240 and 320 seers.
Vayalpaudy	... 240 and 320 seers.

In Vempully and few villages of Poolivendla talook 800 seers are reckoned as constituting a pootty and in a few villages of Cuddapah and Kadiry talook, 640 seers are calculated. Its struck capacity is greater than that of Madras but its diameter is less.

LIQUID MEASURES.

The seer or measure above mentioned is used with its sub-division of eighths or arapows for milk, oil, and ghee. Also the cutcha seer, a vessel supposed to contain 24 rupees' weight of the above liquids. Also the weights above shown for oil and ghee.

(9) GANJAM.

WEIGHTS.

2 ruttees	= 1 chinnam (6 grains).	
30 chinnams	= 1 tolah (180 grains).	
24 tolahs	= 1 cutcha seer.	
5 seers	= 1 viss	= 120 tolahs (3·0857 lb.)
40 seers	= 1 maund	= 960 tolahs (24·6857 lb.)
320 seers	= 8 maunds = 1 cuntlam.	
20 maunds	= 1 candy or pootty (493·714 lb.)	

There is also in use a 'pedda' or large seer of 1½ viss and a 'nauttoopuddy' seer of 22 rupees' weight, 5 of which constitute a local viss. The following are in use also in the district :—

Padalam cutcha	= 60 tolahs.
Padalam nauttoopuddy	= 55 tolahs.
Yebalam cutcha	= 30 tolahs.
Yebalam nauttoopuddy	= 27½ tolahs.

LAND MEASURES.

In some returns to the Board of Revenue, dated 1836, the measuring rod is said to be 8 cubits, or 4 guz and 12 ungoolams; and the length was assumed at 12 feet 9½ inches, but the ungoolam was estimated at 'about ¾ inch,' which is under its usual length, and the guz was assumed to be an English yard. It is probably more correct to assume the cubit at 19½ inches, which is perhaps rather under the average, and this gives the rod of 8 cubits 13 English feet exactly.

In Poobaconda and Mohiry.

1 rod square = 1 coonta	= 169 square feet.
50 coontas	= 1 bharnam of 'irrigated' land = 8,450 square feet = ·19398 acre.
100 coontas	= 1 bharnam of 'unirrigated' land = 16,900 square feet = ·38797 acre.

The bharnam (which is the name of a grain measure) is sometimes divided into 20 nowts. A nowt of land is supposed to require a nowt of seed. The nowt of seed is 12 seers of 80 tolahs weight each, or about 850 cubic inches.

It has been usual to estimate the 'wet' bharnam at 8 goontas, or $\frac{18}{40}$ of an acre; and the 'dry' bharnam at $\frac{16}{40}$ths. The above computation makes them 7·8 and 15·6 fortieths of an acre respectively, so that for all practical purposes the old rate is correct.

In the Ichapore talook, the rod is 7½ cubits, which would make the 'dry' bharnam ·344 acre.

In Goomsoor the rod is 16 cubits and 16 inches, and 25 square rods = 1 mauna for both 'irrigated' and 'unirrigated' land. Supposing what is called the inch to be the ungoolam of ·81 English inch on an average, the rod would be 26·96, or say 27 feet, and the mauna = 18,225 square feet, or ·4184 acre.

In Wadauda and Parlakimedy, the rod is 8 cubits; and the cubit being assumed at 19·5 English inches, the rod is 13 feet as in the talooks of Poobaconda and Mohiry.

1 rod square	= 1 coonta	= 169 square feet.
600 coontas	= 1 garce	= 101,400 square feet = 2·3278 acres.

According to old returns of 1836, the measurement in Wadauda is as follows :—

22 cubits	= 1 rope	= 35·75 feet.
1 square rope	= 1 coonta	= 1,278 square feet.
80 coontas	= 1 garce	= 102,240 square feet = 2·347 acres.

This corresponds nearly with the preceding.

The garce of land is generally estimated at 2 acres, and is supposed to be the extent that will produce a garce of grain. The Ganjam garce is 1,800 seers of 80 tolahs' weight of rice each : or about 128,000 cubic inches.

The 'garce' land measure of Vizagapatam is different.

GRAIN MEASURES.

The tables given in the returns to the circular of 1836 accord tolerably well with those in the returns to a circular of 1851. There is however a difference in the number of pucka seers to a toom which makes it necessary to arrange two tables, as follows (every measure is supposed to be heaped) :—

Table I. Sicca Measure.

4 giddas	= 1 sola = 15 tolahs' weight of rice, heaped moderately.
2 solas	= 1 tavva = 30 tolahs.
2 tavvas	= 1 adda = 60 tolahs.
80 tolahs' weight	= 1 pucka seer.
4⅓ addas or 3¼ seers	= 1 toom or coonchum = 260 tolahs.
4 tooms or 13 seers	= 1 nowt = 1,040 tolahs.
5 nowts or 20 tooms or (coonchums)	= 1 pootty of 65 seers.
4 potties or 260 seers	= 1 bharnam.
600 tooms of 3¼ seers each	= 1 garce = 1,950 pucka seers.

Table II. Bikkah Measure.

4 addas	= 1 toom of 2¾ pucka seers, or 220 tolahs.
20 tooms	= 1 pootty.
600 tooms (of 2¾ seers each)	= 1,650 seers = 1 garce.

According to experiments made in 1852, the toom (sometimes called coonchum) averaged, when heaped, 3 seers of rice, of 80 tolahs to the seer, or a total of 240 tolahs. The toom measures were found to be of all shapes, and varied considerably in their struck capacity from 161 cubic inches to 227. The average was 193 cubic inches or 216 tolahs of rice struck, and 240 heaped.

Bikkah measure is in use in villages generally and sicca measure in towns.

LIQUID MEASURES.

The most usual measures for milk, oil and ghee are the grain measures, sola, tavva, adda, and toom of table I. The sola averages about 14 cubic inches, but it varies very much.

(10) GODAVERY.

WEIGHTS.

The ordinary table is as follows :—

24 tolahs = 1 cutcha seer.
5 seers = 1 viss (3·0857 lb.).
40 seers = 1 maund (24·6857 lb.).
20 maunds = 1 candy (493·714 lb.).

The "commercial" weight assigned to the maund is 25 lb.

The pucka seer of 80 tolahs is in use as a weight in a few localities.

LAND MEASURES.

5 cubits = 1 rod or veesam.
16 rods or 80 cubits long = 1 puggum (132 English feet).
1 square puggum = 1 coonta (17,424 square feet or $\frac{4}{10}$ acre).
20 coontas = 1 pootty (8 acres exactly).

The pootty is also sub-divided into 80 'coonchums.'

The above is the ordinary pootty of the district, but there are other land measures in use in different localities, which will be noticed below.

If 80 cubits = 132 feet, the cubit = 19·8 inches, and this may be considered a fair average for the district.

The following 'pootty' is in use in parts of the talooks of Ramchendrapooram and Narsapore.

32 cubits = 1 puggum.
1 square puggum = 1 coonta = 2,787·84 square feet.
100 coontas = 1 pootty = 278,784 square feet = 6·400 acres.

In the Narsapore and Tanookoo talooks the 'pootty' for lunka land, or the alluvial islands formed in the bed of the Godavery is as follows :—

6 cubits = 1 rod or veesam.
16 rods = 1 puggum of 96 cubits.
1 square puggum = 1 coonta = 25,090¼ square feet = ·576 acre.
20 coontas = 1 pootty = 501,811 square feet = 11·52 acres.

In the Bheemavaram talook, adjacent to Masulipatam, the 'cutty' is used. It is sub-divided into 32 coontas, each coonta being a square of 80 cubits to the side. This gives 12·8 acres.

Besides the 'cutty' above mentioned, there is the cutty of 32 coontas, each coonta being 84 cubits square, giving 614,718 square feet = 14·11 acres. The cutty of 32 coontas of 96 cubits to the side, or 802,898 square feet = 18·4 acres. The pootty of 20 coontas of 98 cubits to the side, or 522,938 square feet, or 12·0 acres.

In the Bheemavaram and Tanookoo talooks, the pootty of 20 coontas of 88 cubits to the side, or a total of 421,661 square feet = 9·6786 acres.

In the Tanookoo talook, a pootty of 20 coontas, of 84 cubits to the side ; giving a total of 384,199 square feet = 8·82 acres.

In the Yernagoodem talook, a pootty of 35 coontas, of 88 cubits to the side; giving a total of 737,906 square feet = 16·94 acres.

In parts of Ramchendrapooram and Narsapore talooks, a pootty of 100 coontas, of 40 cubits to the side ; giving a total of 435,600 square feet, or 10 acres exactly.

In parts of Ramchendrapooram and Peddapore talooks, a pootty of 25 coontas, of 80 cubits to the side ; giving a total of 435,600 square feet, or 10 acres exactly.

These measures have since the survey been more or less superseded by the English acre and its sub-divisions.

GRAIN MEASURES.

The ordinary table is as follows :—

4 giddas	= 1 sola.
2 solas	= 1 tavva.
4 solas	= 1 pucka seer of 80 tolahs of rice, heaped moderately.
2 seers	= 1 adda.
4 seers	= 1 coonchum = 320 tolahs.
3 coonchums	= 1 mercaul.
4 coonchums or 16 seers	= 1 toom.
80 coonchums or 20 tooms	= 1 pulle pootty = 320 seers.
200 coonchums	= 1 malaka pootty = 800 seers.
600 coonchums	= 1 garce = 2,400 seers.

The malaka pootty is also sub-divided into 20 tooms, but of 10 coonchums to the toom and is in general use. In a few localities the pulle pootty is used.

According to the returns to the circulars of 1821 and 1836, the coonchum was sub-divided into 4 maunica as in Vizagapatam, but though the maunica and the seer were no doubt originally different, the latter is now substituted for the former.

The coonchum, according to the trials made in 1852, averages about 250 cubic inches capacity, containing 320 tolahs of rice when heaped.

LIQUID MEASURES.

The usual measure is that used for grain under the denomination of the pucka seer. It is supposed to contain from 70 to 80 tolahs' weight of milk, oil, or ghee.

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(11) KISTNA.

(A) OLD GOONTOOR TALOOKS.

WEIGHTS.

9 chinnams	= 1 kurruck pagoda (54 grains).
4 kurruck pagodas	= 1 dub = 216 grains.
1 dub	= 1½ tolah.
20 dubs or 24 tolahs	= 1 cutcha seer.
5 seers	= 1 viss = 120 tolahs = 3·0857 lb.
10 seers	= 1 yettoo.
8 viss	= 1 maund = 960 tolahs = 24·6857 lb.
20 maunds	= 1 pootty or candy = 493·714 lb.

In Maurtoor, Dauchepully, Toomaracottah and Chinna Ganjam, the 'dub' is that of Hyderabad, and weighs one tolah.

In Repally, there is a 'peddapuddy' or large measure seer of 22½ dubs, as in Masulipatam. The usual seer of 20 dubs is called the chinnapuddy or small measure seer.

The 'tunkam' of 16 dubs, as in Masulipatam, is mentioned in the return to the circular of 1836.

LAND MEASURES.

The land measure best known is the cootchel. It is generally subdivided into 64 'coontas,' but sometimes into 32, and occasionally into 100, 30 and 40.

The coonta is a square, each side of which is a 'puggum' or rope of 80 cubits in length, but the number of cubits occasionally varies as will be seen below. The cubit is ¼ fathom, and the fathom is said to be 78⅘ English inches; so that the cubit on an average is 19·7 inches.

				ACRES.		ACRE.
I.	At 80	cubits, square,	the coonta is	·3960,	and 64 coontas	= 25·3
II.	76	do.	do.	·3574	do.	= 22·87
III.	74	do.	do.	·3388	do.	= 21·68
IV.	72	do.	do.	·3207	do.	= 20·53
V.	66	do.	do.	·2695	do.	= 17·25
VI.	64	do.	do.	·2532	do.	= 16·22

Nos. I and IV are the most common and then III and V, but there are other varieties of the cootchel where it is 32 coontas, or 100 coontas. The cootchel No. I is probably the same as that of the Ongole sub-division of Nellore.

In the division of Pulnaud, the acre was introduced on the occasion of the last survey, and sub-divided into coontas (or goontas) as in Bellary. This measure has also been adopted in the Government re-surveys of many of the Goontoor villages and of the irrigated lands of the district.

There is also a 'bady' or compensating cootchel introduced by the former native rulers. A fixed sum (say 20 pagodas) was fixed as the assessment per standard or calaury cootchel for the whole village ; but as soils varied, instead of altering the money rate, they altered the extent of the cootchel, and those that were not calaury or standard were 'bady.' Where the soil of a field was very rich the 'bady' of cootchel was perhaps 8 acres instead of 24, but still paid 20 pagodas per cootchel. A field of inferior soil also paid 20 pagodas per cootchel, but then the cootchel was a 'bady' of double the size of the standard cootchel.

There is also what is termed the veesarapauty cootchel formed from cubits much larger than the ordinary cubit. This is sometimes used for inams.

GRAIN MEASURES.

The grain measure best known is the pootty or candy ; being either 1,200 pucka seers of grain of 80 tolahs each, heaped moderately, or 1,120 such seers. It is variously sub-divided as follows :—

I.

In Goontoor the 'puddy' is supposed to be heaped, and when so, is equal to the scarcely heaped customary puddy or measure of the town of Madras.

$1\frac{1}{2}$ seers	= 1 puddy	= 120 rupees' weight.
100 puddies	= 1 shalagay	= 150 pucka seers.
8 shalagays	= 1 pootty	= 1,200 pucka seers.

II.

In Ponnoor, Maurtoor, and Repally—

$1\frac{7}{8}$ seers	= 1 maunica.	
80 maunicas	= 1 shalagay	= 150 pucka seers.
8 shalagays	= 1 pootty	= 1,120 pucka seers.

III.

In Prattipaud, Baupatla, Coorpaud, Condaveed, and Chinna Ganjam—

$1\frac{3}{4}$ seers	= 1 maunica.	
80 maunicas	= 1 shalagay	= 140 pucka seers.
8 shalagays	= 1 pootty	= 1,200 pucka seers.

IV.

In Mungalagherry, Narsarowpett, Vinoocondah, Dauchepully, and Toomaracottah—

$1\frac{9}{16}$ seers	= 1 maunica.	
100 maunicas	= 1 shalagay	= $156\frac{1}{4}$ pucka seers.
8 shalagays	= 1 pootty	= 1,250 pucka seers.

In Nizampatam the pootty is 1,174 pucka seers and in Tenally, 1,280.

The 'maunica' varies very much in capacity from 130 to 150 tolahs of rice when heaped.

The 'marcam' of 12 pucka seers was formerly in use, being the same as the 'mercaul' of Masulipatam.

In the return to the circular of 1836, the pootty or candy is generally described as containing 20 tooms of 32 maunicas to the toom, a maunica varying from $1\frac{1}{4}$ to 2 seers. At 1·87 seers to the maunica, the pootty would be 1,200 seers; at 1·75 seers, it would be 1,120 seers. In this return, the seer used for grain measure is said to be 64 dubs. If 20 dubs = 24 tolahs (see weights) 64 would be a seer of 76·8 tolahs. This may have been the weight of the old seer, or there may have been a difference in the weight of the dub. (In some commissariat statements mention is made of an adda of 3 puddies and a coonchum of 6 puddies).

LIQUID MEASURES.

The cutcha seer (24 tolahs) measure used for grain is in use, and supposed to contain 24 tolahs' weight of milk, oil, or ghee. It is sub-divided into 8 'navatanks' and 40 cutcha seers = 1 maund. The pucka seer of 80 tolahs and the maunica of $1\frac{3}{4}$ pucka seers are also in use of liquid measures.

(B) REMAINING TALOOKS.

WEIGHTS.

The following is the ordinary table :—

4 goonj seeds = 1 chinnam (6 English grains).
9 chinnams = 1 pagoda weight (54 grains).
4 pagodas' weight = 1 dub = $1\frac{1}{5}$ tolah.
16 dubs = 1 tunkam.
$1\frac{1}{4}$ tunkam, or 20 dubs, or 80 pagodas = 1 cutcha seer = 24 tolahs.
5 cutcha seers = 1 viss = 120 tolahs.
10 cutcha seers = 1 yettoo.
40 cutcha seers = 1 maund = 960 tolahs.
20 maunds = 1 candy or 800 cutcha seers' weight.

The above is called the 'chinnapuddy,' or small measure scale, and is most usual; but there is a 'peddapuddy,' or large measure scale, in use at Masulipatam and in Goodivanda, Divy, and Chellapully, according to which the seer is $22\frac{1}{2}$ dubs, or 90 pagodas, or 27 tolahs. In this case the peddapuddy 'viss' is 135 tolahs and the maund 1,080 tolahs. There is also a pucka seer nominally 64 dubs, or 77 tolahs, but generally 80. Its multiples are not used.

LAND MEASURES.

The land measure from which others are derived is the coonta.

$5\frac{1}{2}$ cubits are said to be exactly equal to $9\frac{1}{2}$ English feet. This gives the cubit = 20·7273 inches, or 1·7273 feet. This is the cubit called No. I in the table below. There is however a 'garden land' cubit, $4\frac{1}{2}$ of which = 7 feet 8 inches, or 1 cubit = 20·444 inches; this is called No. II in the table below. There is also the Bezwada cubit of $4\frac{3}{4}$ to 8 feet 2 inches, or 1 cubit = 20·621 inches, and is the cubit called No. III in the table below.

Areas of land are best known in 'cutties.' The cutty being generally 32 coontas, but sometimes 35 and sometimes 30, as shown in the three divisions of the table below. The district authorities generally reckon 17 acres to a cutty :—

Cubits.	Feet.	Square feet in 1 coonta.	Coonta in acres.	—	Cutty in acres.	Where used.
88 of No. I ...	152·0	23,104	·53039	× 32	= 16·972	In all the talooks but the four below.
80 of No. I ...	138·2	19,090	·43825	× 32	= 14·024	
72 of No. II ...	122·7	15,047	·34543	× 32	= 11·054	
76 of No. III ...	130·6	17,068	·39183	× 32	= 12·539	
88 of No. I ...	152·0	23,104	·53039	× 35	= 18·564	Talooks of Ellore and Gollapully.
80 of No. I ...	138·2	19,090	·43825	× 35	= 15·339	
72 of No. II ...	122·7	15,047	·34543	× 35	= 12·089	
88 of No. I ...	152·0	23,104	·53039	× 20	= 10·608	This is the pootty of Ralungy and Pentapaud.
80 of No. I ...	138·2	19,090	·43825	× 20	= 8·765	

There is also another method of computing the coonta from the 'veesam' or 16th of a coonta, which is 4 rods in length, squared. The rod however varies in length, being either $5\frac{1}{2}$, 5, $4\frac{3}{4}$, or $4\frac{1}{2}$ cubits. If these lengths are known as I, II, III, IV, the resulting coontas will be respectively 23,104, 19,090, 17,068, and 15,047 square feet, which correspond with some or other of the coontas of the above table. For example, 4 rods of the 5 cubits = $4 \times 8{\cdot}636 = 34{\cdot}5$ feet; and $(34{\cdot}5)^2 = 19{,}090$ square feet.

The 'cutty' of part of Rajahmundry is 32 coontas of 80 cubits square each, but the cubit of that district is 19·8 inches; whereas in Masulipatam, if the data given are correct, it is 20·7273 inches. The cutty therefore of Rajahmundry is less, being 12·8 acres.

GRAIN MEASURES.

4 giddas = 1 sola = 40 tolahs of rice when heaped moderately.
2 solas = 1 tavva or pucka seer containing 80 tolahs of rice when heaped.
$1\frac{1}{2}$ seers = 1 puddy.
2 seers = 1 maunica (sometimes called adda).
$4\frac{1}{2}$ pucka seers = 1 coonchum = 360 tolahs.
6 seers = 1 mercaul.
48 seers = 1 toom.
20 tooms or 960 seers = 1 pootty or candy.

All the measures are supposed to be heaped.

According to the experiments made in 1852, the heaped 'coonchum' contained on an average $4\frac{1}{2}$ pucka seers, or 360 tolahs' weight of rice; but varied between 320 and 400; when struck, it averaged 280 cubic inches, but varied greatly.

In the returns to the circular of 1821, a coonchum of 12 seers is mentioned, and 80 such coonchums to a pootty. There is no such coonchum now, though in accounts the pootty is subdivided into 80 parts called coonchums, as in land measure. Of the grain coonchums, about 213 = 1 pootty of grain.

In the returns to the circular of 1821, mention is made of the 'tavva,' as equal to $\frac{1}{2}$ a maunica of $2\frac{1}{4}$ seers. The present $\frac{1}{2}$ maunica tavva is considered the same as a pucka seer. The irasa or $\frac{1}{2}$ toom is also in the old accounts.

In Masulipatam the usual pootty is 960 pucka seers capacity.

In Redangy and Nidadvole, the pootty or candy is considered 900 seers.

In Tiroovore 850, Condapilly 1,200, Mylaveram 1,120, Juggayapett 1,088, Nundigauma 1,040, Noonastalam 1,000.

LIQUID MEASURES.

In the town of Masulipatam, the seer of $22\frac{1}{2}$ dubs' weight (27 tolahs) is used for oil and ghee, and is supposed to contain 27 tolahs' weight of each of those articles.

In other parts of the district the grain measure, known as the 'pucka seer,' is used for liquids.

(12) KURNOOL.

WEIGHTS.

20 tolahs	= 1 cutcha seer.
24 tolahs	= 1 pedda seer.
4 cutcha seers	= 1 pucka seer.
6 cutcha seers or 5 pedda seers	= 1 panchair or viss.
2 panchairs	= 1 dhurrah.
4 dhurrahs	= 1 maund.
8 maunds	= 1 nagoo.
20 maunds	= 1 candy.

The most usual weight is the 'dhurrah' of ¼ maund at 240 tolahs, corresponding to the 'dhadiyam' of Cuddapah and the seer of 20 tolahs. The pucka seer of 80 tolahs is used only in the weighment of flesh and sweetmeats. Indigo, cotton, arecanuts, dried cocoanuts, saffron, garlic, coriander, vomum, fenugreek, cummin-seeds, mustard, poppy, pepper, ginger, flax, cardamoms, nutmegs, oils, brass and copper are weighed with a seer of 21 tolahs and a maund of any of these articles weighs therefore 48 tolahs in excess of the ordinary bazaar maund of 960 tolahs. A special seer of 30 tolahs is used in the weighment of butter. The goldsmiths use as a weight the seer of 24 tolahs, the tolah of 180 grains and the seeds called gooriginja for smaller weights than a tolah (the weight of 90 of these seeds being considered equivalent to a tolah).

The Government stamping establishment uses for its standard iron weights of the different denominations, tested by weighment against full rupees, the rupee being taken as the equivalent of a tolah.

LAND MEASURES.

Previous to the assumption of this territory in 1839, the usual land measure was the coodo; but it was a mere estimate being as much as required a coodo of seed to sow. The coodo varied from about ⅕ of an imperial bushel to ½ of a bushel, and in the town of Kurnool much more. On measuring many fields said to be so many coodos, the coodo was found to range between 3 acres and 3½ acres. Another land measure still commonly known in the country is the 'gorty' or the extent which can be sown from morning to night with a gorroo or seed drill drawn by a pair of bullocks. The 'gorty' varies from 3½ to 4 acres. In 1841 the cultivable lands of the district were measured field by field with a 33-feet chain and the measurements entered in acres and goontas as in Bellary. Acres and cents are the measures now most generally in use.

GRAIN MEASURES.

The old measures have the same denomination as in Cuddapah.

2 giddas	= 1 adda.
2 addas	= 1 sola.
2 solas	= 1 tavva.
2 tavvas	= 1 maunica or moonta or peily.
2 maunicas	= 1 adda.
2 addas	= 1 coonchum.
2 coonchums	= 1 irasa.
2 irasas	= 1 toom.
20 tooms	= 1 putty.

The sola when heaped is found to vary from 60 tolahs' weight of rice to 300 in different villages.

The heaped 'sola' of the town of Kurnool was in 1842 found to be 800 tolahs' weight of rice. The town 'coodo' was 12 peily of 4 solas each.

The 'tavva' of the town of Nundiaul was found to contain about 242 tolahs' weight of rice (when heaped) and 32 solas to a 'coodo.'

The 'adda' of Atmacore was found to contain about 134 tolahs of rice when heaped.

There is however a 'measure' generally in use in the four talooks of Kurnool proper called, though erroneously, the Madras measure. It averages about 7½ inches deep, and 4 diameter, or a capacity of 96 cubic inches and contains 106 tolahs of rice when struck and 114 when heaped. The number of those to a putty varies in every large village.

Paunem ...	64,032 measures (heaped)	to a putty.	
Sirwail ...	1,320	do.	do.
Chagulmurry ...	760	do.	do.
Nundiaul ...	1,280	do.	do.
Nundicotcore ...	1,320	do.	do.
Atmacore ...	2,300 measures (heaped)	to a putty.	
Callwa ...	2,880	do.	do.
Goodoor ...	3,840	do.	do.

The following table gives the names of the local standard measures in the different talooks, their assumed normal contents in rice, their cubic capacity and their diameter in inches :—

Stations.	Name of measure.	How locally used.	Normal contents in rice.	Capacity, cubic inches.	Diameter.
Atmacore	Measure ...	Heaped ...	114 tolahs ...	98·61	3·9
Callwa	Do. ...	Do. ...	Do. ...	95·15	4·05
Coilcoontla	Do. ...	Do. ...	132 tolahs ...	107·16	4·0
Cumbum	Do. ...	Do. ...	Do. ...	112·45	4·1
Kurnool	Do. ...	Do. ...	114 tolahs ...	95·15	4·11
Markapore	Do. ...	Do. ...	132 tolahs ...	109·00	4·05
Nundicotcore	Do. ...	Do. ...	114 tolahs ...	95·15	3·9
Nundiaul	Do. ...	Do. ...	Do. ...	97·75	4·05
Owk	Do. ...	Do. ...	132 tolahs ...	108·13	4·0
Putticondah	Seer	Do. ...	84 tolahs ...	72·22	3·65
Ramalcottah	Measure ...	Do. ...	114 tolahs ...	95·15	4·1
Repally	Seer	Do. ...	84 tolahs ...	71·79	3·65
Sirwail	Measure ...	Do. ...	114 tolahs ...	96·02	4·2

The system of test pursued in this district by the Government stamping establishment is by volume of water.

LIQUID MEASURE.

The smaller grain measures are used for liquids.

(13) MADRAS TOWN AND SUBURBS.

WEIGHTS.

It appears from an old work giving tables of the weights and measures used in the East, and dated A.D. 1778 (author's name not mentioned), that the jewellers' weight at that time in Madras was a 'pagoda' weighing 52¾ grains; but for gross weights, the 'pollum' of 10 pagodas, or 1 oz. 3¼ drams avoir., was the unit; the seer 9 oz. 10 drams (23¼ of the present tolah); the viss 3⅛ lb.; the maund 25 lb. and the candy 500 lb.

In the almanac of 1795 A.D., it is stated that the goldsmiths' weight is the pagoda of 52·65 grains; but that the unit of the commercial weight is a pollum of 1¼ oz. avoir., giving a 40 pollum 'viss' = 3⅛ lb. exactly; a maund of 25 lb. and a candy 500 lb. The pollum of 1 oz. 3¼ drams (see previous para.) does not give 3⅛ lb. exactly to the viss.

The mint weight of the star pagoda was 52·56 grains, but if the pollum of 1¼ oz. is considered 10 pagodas, this nominal pagoda must weigh 54·69 grains.

Although the 'pollum' of the provinces is almost invariably assumed at 3 tolahs, according to which the 40 pollum 'viss' would be 3·0857 lb., the pollum of the town of Madras has always been, and the standard is to this day, 1¼ oz. avoir., by which the multiples correspond exactly with English weights. The Government in the Gazette of 20th October 1836 notified that a table of weights commencing with a pollum of three tolahs was to be used in all the Government departments, but the Collector's 'stamped' pollum of 1¼ oz. (3·036 tolahs) is the only one in use in the shops and bazaars of the town of Madras.

The standard weights deposited in the Collector's office and from which the bazaar weights are stamped, are counterparts of those made over to that office in 1812 A.D. by the police, who had previously exercised sole authority over the markets. The standard viss was weighed at the mint in 1852 and found to be 3¼ lb. exactly, or 121½ tolahs. The table is therefore as follows :—

1 pollum (palam)	= 1¼ oz. avoir. = (5,469 grains).
40 pollums	= 1 viss = 3⅛ lb.
8 viss	= 1 maund = 25 lb.
20 maunds	= 1 candy or baurum = 500 lb.

The seer weight of 9 oz. 10 lb. mentioned in the old book of 1778 A.D. does not appear in the almanac of 1795 A.D., or any subsequent almanacs. It is the cutcha seer of the provinces of 24 tolahs' weight, but is little used in Madras, and not among the Collector's standards.

For precious metals and drugs the pagoda weight is used. The Collector's standard is found to be 52·6 grains. This is the old mint weight of the coin, which has long ceased to be current. For weighing pearls, the chavvoo or munjaudy (seed of the Adenanthera pavonia) is used and found to be 5¾ grains, 20 of them making a calanjy of 11½ grains. The munjaudy used for diamonds is 4½ grains. The rate used for emeralds is 3¼ grains.

The Indian maund of 3,200 tolahs or 82²⁄₇ lb. avoir. is used in some commercial dealings. 27·216 such maunds = 1 ton or 18 tons = 490 maunds exactly. 1,000 maunds = 36·73 tons, also 7 maunds = 576 lb. The maund is divided into 40 seers each of 80 tolahs' weight (2·05714 lb.) and each seer into 16 chittack. 35 seers = 72 lb. avoir. exactly.

LAND MEASURES.

The land measure of the Collectorate of Madras, including the town and its suburbs, is the cawny, thus subdivided :—

60 feet by 40 feet or 2,400 square feet = 1 munny or ground.

24 munnies or grounds = 1 cawny, or 57,600 square feet = 1·322314 acres.

The exact proportion between an acre and a cawny is 121 to 160.

It will be observed that the sub-division of the cawny is not the same as in other districts (see Chingleput, North Arcot, and South Arcot).

The Tamul word 'munny,' translated 'ground' signifies a space of land sufficient to build a small native house on.

This cawny in its present dimensions is said to have been introduced into Chingleput, North Arcot, and South Arcot by Royajee alias Rajah Beebar, the celebrated Diwan of the Nawab Mahomed Ally. It had previously been known as the Mylapore cawny; Mylapore being a suburb of Madras, generally known as St. Thomé.

Mr. F. U. Ellis, Collector of Madras in 1814, mentions in his paper on mirassy right, the existence of an ancient cawny considerably larger than the present one. No information is to be derived from the Tamul name (cawny) which signifies either $\frac{1}{80}$th, or right to possess property.

GRAIN MEASURES.

According to the book above mentioned, dated 1778, the 'measure' or 'puddy' of Madras town is said to be 2 lb. 10 oz. avoir., which is equal to 102 of the present tolahs; and 8 of these to a mercaul and 400 mercauls to a garce. It is supposed that the weight refers to the weight of a measure filled with rice. The garce is also said to be 9,256½ lb. of grain.

According to the almanac of A.D. 1795, the cubical content of this measure or puddy is defined, viz., 93¾ cubic inches, and the mercaul of 8 puddies = 750 cubic inches. This is probably the same 'measure' as that mentioned in the book of 1778. Late trials have shown that a vessel of 93¾ cubic inches holds about 106 tolahs' weight of rice, when struck.

The dimensions of the 'measure' and 'mercaul,' as given in the almanac of A.D. 1795, have been repeated in successive almanacs to a very late date, but have been disused half a century and more. The fact is that in 1801 the clerk of the market introduced a mercaul of 832 cubic inches or thereabouts, which was transferred to the Collector's office in 1812 A.D., and though lost, its duplicates are used as standards for stamping the mercauls of the bazaars with the Government seal. The measure (transferred at the same time) is found to be ⅛ of 832, or 104 cubic inches. The capacity of the mercaul of A.D. 1801 is known from the correspondence of that date with the Military Board, who wished to have it somewhat less, so as to hold 23⅐ lb. of rice or $\frac{1}{400}$ of the garce of 9,256½ lb. whereas the police mercaul was then found to contain (struck) about 24¼ lb. of rice. Major DeHaviland (1819) had occasion to examine three stamped mercauls, and found them to contain on an average 30⅙ lb. of water, and 24½ lb. of rice.

It seems that the dimensions of the measure and mercaul have not altered since 1801, for the standards used by the Collector were gauged in 1854 and 1858 at the mint and by the treasury scales, and gave the following results :—

——	Puddy.	Mercaul.
Depth in inches	5·9	10·2
Diameter in inches	4·75	10·25
Content in cubic inches	104	832
Weight of water at 82°, in tolahs.	146	1,164
Do. do. do. in lb. ...	3·76	30·00
Weight of rice (struck) in tolahs.	117	940
Do. do. do. in lb. ...	3·01	24¼
Do. do. when liberally heaped in tolahs.	128	1,024
Do. do. when slightly topped in tolahs.	120	960

None of these measures are perfect cylinders. The content was obtained by weighing their content of water, allowing 100 cubic inches to every 140 tolahs' weight of water at 82°. The mean depths and diameters are given.

The 'pucka seer' of the provinces used for measuring grain is supposed to contain when slightly heaped (as is the custom) 80 tolahs' weight of rice; and it is usual to consider 1½ seer as equal to a Madras measure, which it is if the measure is not actually heaped. The 'pucka seer' of the provinces of 24 tolahs is only used as a weight : not for grain.

The table of Madras measure of capacity is as follows :—

8 ollocks	= 1 puddy or measure.
2 ollocks	= 1 oozhak.
8 measures	= 1 mercaul.
5 mercauls	= 1 parrah.
3,200 measures or 400 mercauls	= 1 garce.

The garce weight of grain is usually entered in the tariffs and price currents as it is in the old book of 1778 above referred to, viz., 9,256½ lb.; but in practice grain is not sold by weight except in the coasting trade by the 'bag' of 2 Indian maunds or 164⁴⁄₇ lb. Duty is levied at the Custom-house per 'garce,' according to the following estimate :—

Puddy ...	92	Indian maunds	to 1 garce.
Rice ...	123	do.	do.
Toovaray (Red gram) ...	121	do.	do.
Colloo (Horse-gram) ...	128	do.	do.
Raggy	113	do.	do.

123 Indian maunds = 10,121 lb., which is thus assumed by the Custom-house as the weight of a garce of rice. At a heaped measure of 128 tolahs, this would be about 10,500 lb.; if only filled to running over, it would be 9,874½ lb. The term garce as a weight ought to be discontinued. How it came to be fixed at 9,256½ lb. is not known. The old measure of 93¾ cubic inches would, when liberally heaped, hold about 112½ tolahs of rice, and 3,200 such measures would weigh 9,256½ lb., but this is no where stated.

The measure of 94¾ cubic inches and the mercaul of 750 have not been in use in Madras or in the provinces, within memory.

The tentative 'mercaul' declared by Government in the Gazette of 20th October 1846 to be the official standard for the Government departments has a capacity of 800 cubic inches, and the 'measure' or 'puddy,' 100 cubic inches; but these measures are now in use in no bazaar in the country; and in the town of Madras, the Government in 1853 authorized the stamping by the Collector of the customary' mercaul and measure of 832 and 104 cubic inches respectively. Even in the Custom-house these 'customary' measures are in use.

The committee, who in 1841 recommended the Government to adopt the mercaul of 800 cubic inches, were under the impression that it was very nearly the capacity of the 'customary' mercaul; but by some oversight they calculated the capacity of the stamped mercals sent to them for inspection from their measurement as cylinders, instead of from their content of water. They were fully aware that these mercauls were not true cylinders, and they actually ascertained the weight of water they contained to be on the average 29 lb. 13 oz. avoir., which at a temperature of 82° gives a capacity of 829 cubic inches; and there is no doubt these stamped mercauls were intended to be duplicates of the standard of 832 cubic inches

in the Collector's office. It is usual to test measures from the Collector's standard, by filling them with grain, and this gives rise to frequent discrepancies.

By commercial usage sugar is generally shipped in bags of 164½ lb. or 2 Indian maunds, and 13½ bags are considered a ton of 20 cwt. From some ports sugar is shipped in bags of 150 lb., 160 lb. and even 200 lb. Oil seeds are shipped in bags of 2 Indian maunds, and 13 bags to a ton of 15 to 18 cwt. Cotton in bales of 300 lb., (Bombay 3 cwt.) and 50 cubic feet considered a ton. Coffee in bags and 18 cwt. to a ton. Saltpetre in bags of 1 cwt. Indigo in chests of 10 or 11 cubic feet. Redwood 20 cubic feet to a ton. Hides 14 cwt. In Bengal 7 bales of silk to a ton of space, and 9 cwt. of tea to a ton of dead weight.

LIQUID MEASURES.

According to the almanac of A.D. 1795, milk, ghee, and oil were sold by the 'measure' or puddy, and its submultiples; and wine and sprits by English measure. This custom has continued to the present day. The English bottle about 48½ cubic inches is also used, and $\frac{1}{16}$ of a bottle is called a chitty. Of oil 1 bottle is considered 8 chitties or ½ a viss. Butter is sold by the cup of 7 ounces avoir. As regards wines and spirits, the old wine gallon of 231 cubic inches is yet the standard in the Collector's office, though the 'Imperial' gallon of Act 5, Geo. IV, cap. 74, which came into use in England, 1st January 1826, is 277·24 cubic inches, and is used in the Commissariat and Medical departments. The 'dram' of the town of Madras is $\frac{1}{40}$ of the old 'wine gallon' or 5·775 cubic inches. In levying duty at the Custom-house, it is usual to consider 6 English bottles as an Imperial gallon which is a very close average. 5·7 would be nearer to the fact.

(14) MADURA.

WEIGHTS.

The ordinary table is as follows :—

24 cutlay pagodas	or 7½ tolahs	=	1 pollum.
80 cutlay pagodas	or 25 tolahs	=	1 seer.
16 pollums	or 120 tolahs	=	1 viss.
100 pollums	or 750 tolahs	=	1 toolaum.
12 toolaums		=	1 pody or bullock load (231 lb.)
2 podies		=	1 cart load (462 lb.) also
8 viss	or 960 tolahs	=	1 maund.
20 maunds		=	1 candy.

In Madura and Meloor, the following table is used :—

1 pollum		=	3 tolahs.
40 pollums	or 120 tolahs	=	1 viss.
6 viss	or 720 tolahs	=	1 toolaum.
8 viss	or 960 tolahs	=	1 maund.

In Ramagherry the 'pollum' is 20 pagodas or 6¼ tolahs, but generally reckoned 6 tolahs, so that the cutcha seer of 4 pollums is 24 tolahs.

In Shivagunga the 'pollum' is 16 pagodas.

LAND MEASURES.

For 'unirrigated' land in the Madura division of this district and for both 'unirrigated' and 'irrigated' in the Dindigul division (including the circle of Nuttam now in the Madura, but formerly in the Dindigul division), the gooly (or goonta) is used. According to early accounts, it is a square, each side of which is 158¼ English feet, i.e., 25,031 square feet, or ·57462 acre, and till A.D. 1856, goolies used to be converted into cawnies, when occasion arose, at the rate of $2\frac{4\frac{3}{4}}{16}$ to the cawny.

The true gooly as now authorised by Government is a square of 160 feet each side, or 25,600 square feet, or ·5877 acre.

For 'irrigated' land in the Madura division, the Madras cawny of 57,600 square feet, or 1·322314 acres, is used. It is sub-divided into annas (or 16ths), of 3,600 square feet each; or when the land is for building purposes, into grounds (munnies) of $\frac{1}{24}$ of a cawny each, as in the town of Madras.

In a few villages, called the cosacoorchy villages, which were transferred from Trichinopoly in 1815, the cawny used both for 'irrigated' and 'unirrigated' land is that of the 'wet' talooks of Trichinopoly. Instead of a rod of 24 feet, one of 21 is used, and $21^2 \times 100$ gives 44,100 square feet, or 1·01 acres, for the cawny of these villages.

The ancient land measures of the Madura country were the chey for 'irrigated,' the cooroocam for 'unirrigated,' and the garden goonta for garden lands. They still exist in the large zemindarries of Ramnaud and Shivagunga.

As to the Ramnaud Chey; according to an inscription on a temple, defining the space between two parts of the building, as the length of a tutcha-cole (or artificer's yard), it appears that one tutcha-cole = 33 English inches. Hence :—

1 tutcha-cole = 33 English inches.

7¾ coles = 1 rod = 21·3125 or $21\frac{5}{16}$ feet.

16 rods square, or 341^2 = 116,281 square feet or 1 chey ; or 2·6695 acres.

The chey is also sub-divided into 256 goolies.

As to the Shivagunga Chey ;

1 rod = 22 country, or 17¼ English feet (9·4 inches to the foot).

16 rods square or $(276)^2$ = 76,176 square feet, or 1 chey, or 1·7488 acres.

The chey is also sub-divided into 256 goolies. Each gooly being a square, the side of which is a rod of 17¼ English feet.

The Shivagunga chey is said to require 2½ cullums of seed to sow it.

As to the Ramnaud Cooroocam :—

(*a*) 72 tutcha-coles = 1 chain = 198 English feet.
1 cooroocam or square chain, or $(198)^2$ = 39,204 square feet = ·090 acre.

(*b*) 210 tutcha-coles = 1 chain = 577½ feet.
1 cooroocam or square chain, or $(577{\cdot}5)^2$ = 333,506¼ square feet = 7·65625 acres.

No. (*a*) is used in all the talooks but that of Pullimadam.

No. (*b*) is used in the Pullimadam talook only.

As to the Shivagunga Cooroocam :—

(*a*) 24 bauhams (fathoms) = 189 country, or 156 English feet.
24 bauhams or 156 feet^2 = 24,336 square feet = 1 cooroocam = ·55868 acre.

(*b*). 32 bauhams or 208 feet^2 = 43,264 square feet = 1 cooroocam = ·9932 acre.

No. (*a*) is the ordinary cooroocam. No. (*b*) is the larger cooroocam dealt out to the Nauttambaudies when this agricultural tribe from the north of the Cauvery immigrated into Shivagunga many years ago.

At 189 country to 156 English feet, as just given in the table, the country foot would be 9·9 inches.

As to the Ramnaud Garden Goonta or Gooly :—

For 'irrigated' gardens, a rod of 16¼ English feet, and this square, or 264·625 square feet = 1 gooly or goonta.

For 'unirrigated' gardens, a rod of $7\frac{1}{16}$ feet, and a goonta of 51·36 square feet.

As to the Shivagunga Garden Goonta or Gooly :—

This is for 'unirrigated' gardens only. The goonta or goolie varies from a square, each side of which is a rod of 21 country, or $16\frac{1}{16}$ English feet, or 258⅓ square feet, to a square each side of which is a rod of 8 country or 6¼ English feet, or 39·06 square feet. There are 7 lengths of rod used : viz., 21, 18, 16, 11, 10, 9 and 8 country feet.

GRAIN MEASURES.

The following are the present standard measures.

Madura Division.

1 puddy (heaped)	=	135 tolahs' weight of rice.
6 puddies	=	1 mercaul = 810 tolahs.
12 mercauls	=	1 cullum = 9,720 tolahs.
10 cullums	=	1 pody (a bullock load).

Dindigul Division.

1 puddy (heaped)	=	135 tolahs of rice.
5 puddies	=	1 mercaul = 675 tolahs.
12 mercauls	=	1 cullum = 8,100 tolahs.

There is also a smaller cullum of about 6,000 tolahs of rice.

The Ramnaud 'cullum' (heaped) is 12,150 rupees weight of rice, and that of Shivagunga about 7,290 rupees.

The Ramalingam 'mercaul' used in Ramnaud and Shivagunga contains 6 seer puddies (heaped) of 135 tolahs' weight of rice each on an average.

In some places the nauttoopuddy is used. It varies from 66 to 80 rupees' weight of rice when heaped, and 4 nauttoopuddies = 1 balla, 16 ballas = 1 modah, 40 to 48 ballas = 1 shalagay, 2 shalagays = 1 pody or bullock load.

In preparing the Government price lists, the 'Madras garce' is reckoned at $2{,}844\frac{1}{2}\frac{2}{7}$ measures of 135 tolahs each.

LIQUID MEASURES.

The smaller grain measures are generally used for liquids. Ghee is often sold by weight.

(15) MALABAR.

WEIGHTS.

The following is the most ordinary table :—

10 rupees	=	1 pollum.
40 rupees	=	1 lb., avoir.
100 pollums or 25 lb.	=	1 toolaum (or maund).
20 toolaums	=	1 baurum (or candy.)

The weight of a pollum however varies in different parts of the district. In the talooks of Chiracal, Cottayam, Cooroombranaud, Wynaud and Palghaut, it represents, as a rule, a weight of 10 tolahs or 10 rupees of 180 grains each, but in Calicut, Ernaud and Valavanaud, it represents 14 tolahs and in Ponnany 12 tolahs. The weight of a toolaum also varies and may be taken to represent from 1,000 to 1,400 rupees. A toolaum is also known in commercial usage as a *maund* and a baurum as *candy*. The accepted weight of a pound is 40 tolahs, although strictly speaking it is only 38·889 tolahs. A maund is usually taken to represent a weight of from 30 to 35 lb.

The standard generally adopted in weighing gold, silver or other precious metal is rupee and gold fanam, 31 of the latter being equivalent to a rupee weight. In the case of brass, iron and other metals, pollums and toolaums are generally used.

LAND MEASURES.

The extent of a field is known by the name of the measure of grain required to sow it; and as some land requires more than another, it follows that the same grain-term does not always denote the same superficial extent.

In North Malabar, an extent of land is known as so many Macleod yedangalies, and it is supposed that the acre ranges from 55 to 72 Macleod yedangalies, 60 being generally assumed as the average.

In South Malabar the country (or naudan) parrah is used, and the average is 9 parrahs to an acre. This is not to be confounded with the 'jenmy' vitt parrah, which is a nominal or exaggerated parrah, made use of in revenue estimates of assessment.

In Wynaud, the land measure is denominated the colagam or pody, and averages $1\frac{5}{8}$ pody per acre.

GRAIN MEASURES.

The most ordinary table is as follows:—

2 ayak	= 1 oyak.
2 oyaks	= 1 oory.
2 oories	= 1 nauzhy or measure (equivalent to $32\frac{1}{2}$ tolahs of rice heaped).
4 nauzhies	= 1 yedangaly or Macleod seer (equivalent to 130 tolahs).
10 yedangalies or 10 Macleod seers.	= 1 parrah or maund (33 lb.)

The measure generally used is the seer introduced by Mr. Macleod in 1802 which contains, when liberally heaped, 130 tolahs of rice. It is used in Chiracal, Cottayam, Cooroombranaud, Valavanaud and Palghaut. In Calicut and Ponnany, Macleod's half seer liberally heaped and containing 65 tolahs is used. The seer used in Ernaud and Wynaud contains 92 and 90 tolahs respectively, the former being a 'struck measure' and the latter a 'liberally heaped measure.' The Madras puddy is equivalent in capacity to a Macleod seer of 130 tolahs. The term 'mooda' is used for a basket of rice containing about 80 lb.

The 'parrah' varies from $6\frac{1}{4}$ to 10 Macleod seers. The Ernaud parrah is about $21\frac{1}{3}$ lb., and the term is sometimes confounded with the maund weight.

In Palghaut 12 parrahs	= 80 Macleod seers.
In Ponnany $6\frac{1}{4}$ Macleod seers	= 1 vadippan.
In Cochin 15 Macleod seers	= 1 parrah.
In some places 6 nauzhies	= 1 toony in others 8 nauzhies.

LIQUID MEASURES.

The following is the ordinary table:—

$1\frac{1}{2}$ Macleod seers	= 1 cootty.
$6\frac{1}{4}$ to $8\frac{3}{4}$ Macleod seers	= 1 maund of 32 lb.
2 to 3 chodanas	= 1 maund of 32 **lb.**

(16) NELLORE.

WEIGHTS.

The ordinary table is as follows:—

10 kurruck pagodas or 3 tolahs	= 1 pollum.
8 pollums or 24 tolahs	= 1 pucka seer.
5 seers or 120 tolahs	= 1 viss.
8 viss or 960 tolahs	= 1 maund.
20 maunds	= 1 candy.

The weights taken for standard by the Government establishment, are, for coarse articles, iron weights with the pollum of 3 tolahs as unit. There are no specific standard weights for weighing gold and silver; they are generally weighed by brass weights with the pagoda of 32 red-seeds or gooriginja as unit. The pagoda weight is $52\frac{1}{4}$ grains troy.

LAND MEASURES.

The villages, which have been measured since the district came under British rule, were measured with the chain of 33 feet. Thus:—

1 square chain	= 1,089 square feet = 1 goonta.
40 goontas	= 43,560 square feet = 1 acre.

The old native measure however for all but garden lands was with a rod of 32 cubits of $52\frac{1}{2}$ English feet. Thus making the cubit 19·68 inches. Thus:—

1 rod square	= $2,756\frac{1}{4}$ square feet = 1 goonta = ·0633 acre.
50 goontas	= 1 goortoo of $137,812\frac{1}{2}$ square feet = 3·1637 acres.

The native goortoo is often sub-divided into 'annas' or 16ths and these again into 16ths. The goortoo is generally reckoned $3\frac{1}{8}$ acre, or 3·1250, which is a sufficiently near approximation. It is said that it originally denoted an area requiring $2\frac{1}{4}$ tooms of seed to sow it. The toom of 16 heaped moontas is about 56 pucka seers of rice.

The garden or jareeb lands were formerly measured with a rod of 21 cubits or $34\frac{27}{64}$ English feet, but the resulting goortoo is the same. Thus:—

1 rod square	= 1,187 square feet = 1 goonta = ·02725 acre.
116 goontas	= 1 goortoo of 137,693 square feet = 3·161 acres.

In some of the talooks of the Ongole sub-division, bordering on Goontoor, the old land measure was the cootchel, said to be 8 goortoos, or about 25 acres.

GRAIN MEASURES.

The ordinary table is as follows:—

4 chitties	= 1 sola, or 70 tolahs of rice, heaped.
4 solas of $3\frac{1}{2}$ pucka seers	= 1 moonta = 280 tolahs.
4 mountas or 14 pucka seers	= 1 coonchum = 1,120 tolahs.
4 coonchums or 56 pucka seers	= 1 toom.
20 tooms or 1,120 pucka seers	= 1 candy.

By experiments made in 1852, it was found that the struck pucka seer had a capacity of about 66 cubic inches, and held, when heaped, 80 rupees' weight of rice.

The half moonta was found to average 115 cubic inches, being 87 inches deep and 4·1 diameter; and when heaped, held $1\frac{3}{4}$ pucka seers (140 rupees' weight) of rice.

The 'puddy' of Goondavole and Sydapore is the same as the maunica of Goontoor in the Kistna district.

In the old accounts, what is called the pootty is the present candy; and what is called the mercaul is the present toom. The mercaul was sub-divided into 8 measures.

The grain measure taken as standard by the Government stamping establishment is the seer of 120 tolahs of rice when fully heaped. There is no specific order for the standard, but it is taken by the Board of Revenue as the basis for the purposes of the returns of food-grain prices in 4 talooks, while in others the half seer and maunica are adopted.

LIQUID MEASURES.

The smaller grain measures, that is to say the chitty and sola, are used for milk, ghee and oil; but the latter two articles are sold by weight when wholesale.

(17) SALEM.

WEIGHTS.

The following is the ordinary table:—

3 tolahs	= 1 pollum.
8 pollums	= 1 seer.
5 seers	= 1 viss.
10 seers	= 1 dhadiyam.
8 viss	= 1 maund.
10 maunds	= 1 pothy.
2 pothies	= 1 baurum.

The weights used as standard by the Government stamping establishment are, for coarse articles, iron weights with the pollum of 3 tolas as unit. The weights, used for gold and silver, have not yet been brought within the control of the Government stamping department. The Board of Revenue sanctioned the introduction of the system of stamping gold and silver weights in 1885, but standard weights have not yet been provided.

LAND MEASURES.

All the talooks of this district, except Tripatore, Krishnagherry, and parts of Dharmapoory and Ootancaray, were subjected to field measurement by local rods early in the century, when the results were entered in terms of local area, details of which are given farther on. In the five talooks above noted, or rather in three of them, and part of the two last, the measurement was with a 33-feet chain, and the results were entered in acres and goontas (40ths) as in Bellary and Cuddapah. Tables for the conversion of the local land measures into acres were made out. In the public accounts and in the ryot's puttahs the entry was only in acres, while in the village

accounts the old country goontas, ballas, &c., were recorded (where the acre was not originally measured) and in a separate column, the equivalent in acres.

The following are the details of the old measurements :—

Unirrigated Land.

Tripatore, Krishnagherry. In these talooks, a chain of 33 English feet was used as in Bellary and Cuddapah. 1 square chain = 1,089 square feet and 40 square chains or goontas = 1 Imperial acre.

Dharmapoory, Ootancaray. In some parts of these two talooks the 33-feet chain and resulting acre were introduced, as in the preceding item. In other parts of both talooks, the goonta was the measure; being 24 fathoms square, and the fathom 8 English feet. The goonta, therefore, is 192^2 = 36,864 square feet = ·846 acre.

Shunkerrydroog, Trichengode, Omalore. The goonta of 24 fathoms square. The fathom being 8 feet. This gives 192^2 = 36,864 square feet = ·846 acre.

Salem ... ... The goonta of 64 fathoms square. The fathom being 6 feet 4½ inches. This gives 408^2 or 166,464 square feet = 3·82 acres. (The balla of Coimbatore.)

Oossoor, Dencanicottah ... The goonta of 36 English feet square. This gives 1,296 square feet = ·029 acre.

Ahtoor ... ... The goonta of 36 fathoms square. The fathom being 6 feet 4½ inches. This gives 52,455 square feet = 1·209 acres.

Paramatty ... ... The balla of 96 fathoms square. The fathom being 6 feet 4½ inches. This gives 374,544 square feet = 8·6 acres.

Namcull ... ... The balla of 96 fathoms square, or 8·6 acres as in Paramatty; but in some parts 64 fathoms square; the fathom being 6 feet 4½ inches. This gives 166,464 square feet = 3·82 acres as in the Salem talook.

Razipore ... ... The double goonta or 36 fathoms square × 2, being double the goonta of Ahtoor and therefere 2·418' acres. The single goonta of 64 fathoms square, or 3·82 acres as in Salem, and the balla of 96 fathoms square, or 8·6 acres as in Paramatty, are also used.

Irrigated Land.

Tripatore, Krishnagherry. The goonta as in the 'unirrigated.'

Dharmapoory, Ootancaray. In some parts the goonta of $\frac{1}{40}$ acre as in the 'unirrigated' land. In other parts the chain was 32 feet and the goonta 1,024 square feet = ·023 acre.

Shunkerrydroog, Trichengode, Omalore. The goonta of 32 English feet square, being 1,024 square feet = ·023 acre.

Salem ... ... The goonta of 32 country, or 29 English feet square, being 841 square feet = ·019 acre.

Oossoor, Dencanicottah ... The goonta as in the 'unirrigated' land.

Ahtoor ... ... The goonta of 9 fathoms square; the fathom being 6 feet 4½ inches. This gives 3,270 square feet = ·0756 acre.

Paramatty, Namcull ... The goonta of 841 square feet as in Salem, except in the lands watered by channels from the Cauvery, where the goonta was measured with a rod of 24 country, or 21·7435 English feet. A rod square, or goonta = 473 square feet; and 120 goontas = 1 chey of 1·302 acres.

Razipore ... ... The goonta of 841 square feet as in Salem. In some parts the rod was 36 country or 32·074 English feet, and the square rod or goonta = 1,062 square feet = ·024 acre.

It is to be observed that the goonta is sometimes called gooly, and the balla, vullum. The bauham, or fathom is called 'mar.'

The above system of land measurement is still adopted in the zemindarries.

When the later survey and settlement were introduced the old system of land measurement was abandoned in all Government villages and the following table was thus uniformly adopted :—

1,000 links = 1 decimal.
100 decimals = 1 acre.

GRAIN MEASURES.

The following statement shows full detail as to the standard local measures in use in the talooks and divisions of this district:—

—	1 vullum = 2 measures.			Puddy or 1 full measure.			½ puddy or seer.			¼ puddy.		
	Normal contents.	Cubic capacity.	Diameter.	Normal contents.	Cubic capacity.	Diameter.	Normal contents.	Cubic capacity.	Diameter.	Normal contents.	Cubic capacity.	Diameter.
	TOLAHS.	C. IN.	IN.	TOLAHS	C. IN.	IN.	TOLAHS	C. IN.	IN.	TOLAHS	C. IN.	IN.
Ahtoor	...	...	...	150	124·12	4½	75	61·50	3¾	37½	30·75	3
Salem	300	232·21	7	150	124·12	4½	75	61·50	3¾	37½	30·75	3
Razipore ... Omalore ... Namcull ... Trichengode ... Shunkerrydroog ...	...	...	...	150	124·12	4½	75	61·40	3¾	37½	30·75	3
Oossoor	344	289·83	7	...	...	...	86	70·47	3¾	43	34·87	3
Dharmapoory ... Krishnagherry ... Dencanicottah ... Pennagaram ... Vaniyambaudy ...	...	...	...	...	...	...	86	70·47	3¾	43	34·87	3
Paramatty ... Ootancaray ... Haroor ... Tripatore ...	...	...	...	...	...	...	75	61·51	3¾	37½	30·75	3

—	$\frac{1}{8}$ puddy.			$\frac{1}{16}$ puddy.			$\frac{1}{32}$ puddy.		
	Normal contents.	Cubic capacity.	Diameter.	Normal contents.	Cubic capacity.	Diameter.	Normal contents.	Cubic capacity.	Diameter.
	TOLAHS.	C. IN.	IN.	TOLAHS.	C. IN.	IN.	TOLAHS.	C. IN.	IN.
Ahtoor	18$\frac{3}{4}$	14·29	2$\frac{1}{2}$	9$\frac{3}{8}$	6·93	2	4$\frac{11}{16}$	3·46	1$\frac{1}{2}$
Salem	18$\frac{3}{4}$	14·29	2$\frac{1}{2}$	9$\frac{3}{8}$	6·93	2	4$\frac{11}{16}$	3·46	1$\frac{1}{2}$
Razipore									
Omalore									
Namcull	18$\frac{3}{4}$	14·29	2$\frac{1}{2}$	9$\frac{3}{8}$	6·93	2	...	...	...
Trichengode									
Shunkerrydroog									
Oossoor	21$\frac{1}{2}$	17·11	2$\frac{3}{4}$	10$\frac{3}{4}$	7·79	2$\frac{1}{2}$	...	...	...
Dharmapoory									
Krishnagherry									
Dencanicottah	21$\frac{1}{2}$	17·11	2$\frac{3}{4}$	10$\frac{3}{4}$	7·79	2$\frac{1}{2}$	...	...	...
Pennagaram									
Vaniyambaudy									
Paramatty									
Ootancaray	18$\frac{3}{4}$	14·29	2$\frac{1}{2}$	9$\frac{3}{8}$	6·93	2	...	...	...
Haroor									
Tripatore									

The following is the table of grain measure most generally in use :—

2 measures = 1 vullum.
40 vullums = 1 cundagam.

The grain measures taken as units by the Government stamping department are two in number, namely, a measure of 150 tolahs of rice for Salem, Ahtoor, Tripatore and Namcull talooks except the Paramatty division, with a half measure of 75 tolahs for the Tripatore and Ootancaray talooks and the Paramatty division. The town of Vaniyambaudy is however excepted and there as well as in the 3 talooks of the sub-division a measure of 86 tolahs of rice is used. Testing glasses are now supplied to stamping goomastas. None but metal measures are now used.

LIQUID MEASURES.

The smaller grain measures are used for milk, ghee and oil.

(18) SALT DEPARTMENT IN THE SALT DISTRICTS.

In the earlier years of the monopoly, salt was always sold by measure, a garce being 400 mercauls of 828$\frac{1}{3}$ cubic inches. In 1828, weighment was introduced and a garce was declared equal to 9,256$\frac{1}{2}$ lb. In 1844, Act VI of that year regulated the price of salt by reference to the maund and the garce was therefore made equivalent to 120 × 82$\frac{2}{7}$ pounds or 120 Indian maunds. A return to measurement was however authorized by the Government of India in 1846. There was some difficulty in getting a measure which held approximately a maund of salt, and the Board in 1848 were permitted to revert to the use of the mercaul. The question then arose as to which mercaul should be adopted, and in 1850 the Government authorized the re-adoption of the DeHaviland mercaul of 828$\frac{1}{3}$ cubic inches. In 1855 an alleged error in the standard of conversion was rectified, and 424 mercauls were declared to be the measure which, on an average, most fairly represented the weight of 120 maunds.

Measurement has, however, now been wholly superseded by weighment in the receipt and issue of all salt, whether the property of Government or of the Excise licensees, except in the supply of salt to the French Government at Pondicherry, under the convention of 1818, renewed in 1837. The weight used is the "Indian maund" of 82$\frac{2}{7}$ lb. avoirdupois. Its Indian equivalent is 40 seers of 80 tolahs each.

Deliveries of salt to the French authorities at Pondicherry are made by a measured garce of 424 mercauls, the contents of each mercaul being 800 cubic inches, and this garce being considered equal to 120 Indian maunds by weight. On the average however 120 maunds by weight run only to 398 mercauls.

(19) TANJORE.

WEIGHTS.

The ordinary table is as follows:—

10 fanams = 1 pagoda weight (54 grains).
10 pagodas' weight = 1 pollum.
8 pollums = 1 cutcha seer.
5 seers = 1 viss.
8 viss = 1 maund.
20 maunds = 1 candy.

According to the old tables 80 pagodas = 1 seer, and the pagoda was then the coin weight of 52$\frac{1}{2}$ grains; but 82$\frac{1}{2}$ pagodas' coin weight are now considered a seer of 24 rupees' weight.

LAND MEASURES.

The ordinary table is as follows :—

1 rod or cole = 12 English feet.
1 rod square = 1 gooly or goonta = 144 sq. feet.
100 goolies = 1 mah = 14,400 square feet $\frac{1}{4}$ cawny.
20 mahs = 288,000 square feet = 1 vayly = 6·6157 acres = 5 cawnies exactly.

GRAIN MEASURES.

The following measures are now in use in the several talooks.

For all the talooks except Munnargoody and Puttoocottah.

$\frac{1}{2}$ puddy = 66$\frac{1}{2}$ tolahs of rice heaped.
1 puddy = 133 do.
2 puddies (heaped) = 1 mercaul = 266 tolahs of rice heaped.
12 mercauls = 1 cullum = 39·9 seers of 80 tolahs each.

For the talooks of Munnargoody and Puttoocottah.

$\frac{1}{2}$ puddy = 72 tolahs of rice heaped.
1 puddy = 144 do.
2 puddies (heaped) = 1 mercaul = 288 tolahs of rice heaped.
12 mercauls = 1 cullum = 43·2 seers of 80 tolahs each.

LIQUID MEASURES.

The 'seer' supposed to contain 80 tolahs' weight of milk, oil, or ghee is commonly used. Dr. Kelly in his 'Cambist' gives 67 cubic inches as the capacity of the counterpart puddy sent to him in 1823.

(20) TINNEVELLY.

WEIGHTS.

The following is the ordinary scale :—

2 goondoo-manies = 1 munjaudy (4·1 grains).
20 munjaudies = 1 calanjy.
44 munjaudies = 1 rupee (180 grains).
12 calanjies (or 5$\frac{1}{2}$ tolahs) = 1 pollum.
100 pollums (or 550 tolahs) = toolaum or shiroopuddy (13·7 lb.).

The weight called varauhaniday, about 13$\frac{1}{2}$ munjaudies or 54 grains, is in use in some northern parts of this district. A toolaum of 144 pollums called vadapuddy is also in use with its sub-multiples. There is a scale-rod called vellicole graduated from $\frac{1}{4}$ to 50 pollums used for weighing vegetables and other minor articles. For purposes of jaggery trade there is used a larger kind of vellicole which is graduated from 1 to 7$\frac{1}{2}$ maunds of 28 rautals each (rautal) 40 rupees' weight.

In some localities the rautal of 6$\frac{10}{11}$ pollums, or 38 tolahs, is used and considered equivalent to an avoirdupois pound. The avoirdupois pound is however 38·9 tolahs' weight. The seer of 80 tolahs' weight is also in use.

LAND MEASURES.

'Unirrigated' land is measured in shangilies or chains, 'irrigated' land in Vitheicottay or seed-cottay.

The Tinnevelly tutcha-cole or artificer's yard is 33 English inches, as at Madura.

It is said that 16 country feet are exactly $4\frac{60}{64}$ tutcha-coles, or $162\frac{60}{64}$ inches. This would make the 'adee' or country foot = 10·184 English inches.

Unirrigated Land.

The following is the table :—

$4\frac{17}{32}$ tutcha-coles = 1 rod = $12\frac{7}{16}$ feet (12·4375).
32 rods square $(398)^2$ = 1 chain = 158,404 square feet = 3·63645 acres.

Irrigated Land.

The following is the table :—

$7\frac{1}{2}$ tutcha-coles = 1 rod = $20\frac{1}{2}$ feet.
1 square rod of $420\frac{1}{4}$ square feet = 1 puddy or nauzhy (called also in the old accounts a 'goonta').
8 puddies = 3,362 square feet = 1 mercaul or cooroony.
21 mercauls = 70,602 square feet = 1 seed cottay = 1·6208 acres.

It is supposed that the puddy of irrigated land is an area which requires a puddy to sow. The seer-puddy of Tinnevelly is a measure which when heaped, as is the universal custom, contains 80 tolahs' weight of rice, or about 71 cubic inches including the heap.

The cawny is used in some parts of the district, sub-divided as in Chingleput.

In some of the old polliems, the cooroocam (see Madura) is the land measure. It averages about $\frac{1}{4}$ chain, or $\frac{9}{10}$ of an acre, but varies so greatly that no definition is possible.

In the present district Government accounts acres and cents alone are in use.

GRAIN MEASURES.

There was formerly a mercaul of rice, weighing $52\frac{1}{2}$ lb. when struck, and $57\frac{1}{2}$ lb. when heaped. It was sub-divided into twelve 'seer-puddies' of 82 tolahs each. This mercaul has since fallen into disuse.

In 1852, the following table and equivalents were found to be in use, commencing with the same 'seer-puddy,' a vessel of about $66\frac{1}{2}$ cubic inches, and containing 75 tolahs' weight of rice, struck, and 82 heaped tolerably full :—

1 seer-puddy = 82 tolahs of rice, heaped.
8 heaped seer-puddies = 1 mercaul (656 tolahs).
21 heaped mercauls = 1 cottay = 168 seer-puddies.

At the present day there are 2 pucka-puddies in use in different parts of the district. One used struck and the other heaped, the former containing 120 tolahs of rice and the latter 128. The pucka-puddy is sub-divided into 8 ollocks. There are also 4 different mercauls, 2 used struck containing respectively, 480 tolahs and 600 tolahs, and 2 used heaped containing 640 and 704 tolahs respectively. But orders have recently been issued for reducing these different mercauls to one uniform standard of 600 tolahs. The old seer-puddies are not now used in public markets where pucka-puddies and their sub-multiples, stamped according to the Government standards, are alone in use, but seem to be used in private transactions among land-holders.

In preparing the price lists, the Madras garce is reckoned at 3,200 measures of 120 tolahs' weight.

LIQUID MEASURES.

The present pucka-puddy containing 61 ounces of water and its sub-multiples are used in selling milk, oil, and ghee.

(21) TRICHINOPOLY.

WEIGHTS.

The ordinary scale is as follows :—

3 tolahs	= 1 pollum.
8 pollums	= 1 'cutcha' seer.
5 cutcha seers	= 1 Madras viss.
25 pollums	= 1 'pucka' seer.
8 pucka seers	= 1 toolaum (15·4 lb.).
32 toolaums	= 1 candy (493 lb.).

In the large suburb of Trichinopoly called Warriore, the 'pucka' seer is $27\frac{1}{2}$ pollums or $82\frac{1}{2}$ tolahs; and the toolaum is $5\frac{1}{2}$ Madras viss or 660 tolahs, or 17 lb.

LAND MEASURES.

In what are called the 'dry' talooks, or those in which there is not much irrigated land, namely, Toorayore, Volcondapooram, Ariyaloor, and Oodayarpolliem, the cawny is measured with a 24-feet rod as in South Arcot. This rod is said to be 28 country feet, which makes the foot 10·2857 inches, as in Chingleput. In the 'wet' or irrigated talooks, namely, Moosiry, Vitticootty, Conaud, and Laulgoody, a rod of 21 English feet is used. Thus :—

1 rod square = 1 gooly = 441 square feet.
100 goolies = 1 cawny = 44,100 square feet = 1·01 acre.

The above is the present land measure in the entire inam shrotriem and zemindarry villages only. In the Government villages the following measures are used :—

100 links or 22 yards	= 1 chain.
1,000 square links	= 1 cent.
100 cent or 100,000 links	= 1 acre.

GRAIN MEASURES.

The following is the ordinary table :—

116 rupees' weight	= 1 puddy.
58 rupees' weight	= 1 half puddy.
2 puddies	= 1 vullam or half mercaul.
4 puddies	= 1 mercaul.
12 mercauls	= 1 cullum.

The half mercaul in Toorayore, and half puddy in Ariyalore, Keelpaloovore and Oodayarpolliem, are chiefly used.

LIQUID MEASURES.

Ghee is sold in retail in the bazaars in seers of 75 rupees' weight. In town the above grain measure is used by the people for selling ghee in houses.

The wholesale measure for ghee is the 'pothy' of 105 seers sub-divided into 8 paunays or chatties and each paunay into 4 chemboos.

The wholesale measure for oil is the 'pody' of 120 seers sub-divided into 6 audams.

(22) VIZAGAPATAM.

WEIGHTS.

The following is the ordinary table :—

1 chinnam	= about 6 English grains.
30 chinnams	= 1 tolah = 180 grains.
24 tolahs	= 1 cutcha seer.
$2\frac{1}{2}$ seers or $\frac{1}{2}$ viss	= 1 padalam = 60 tolahs.
5 seers	= 1 viss = 120 tolahs = 3·0857 lb. avoir.
10 seers	= 1 yettoo.
40 seers	= 1 maund = 960 tolahs = 24·6857 lb.
20 maunds	= 1 candy or pootty = 493·714 lb.

There is also a pucka seer of 80 tolahs. A weight called "cuntlam," i.e., bullock load, is adopted at Vizagapatam in the case of jaggery and tamarind, and elsewhere in the case of these articles as well as of cotton. The weights, however, differ. At Vizagapatam, a cuntlam of jaggery is 7 maunds, and that of tamarind $7\frac{1}{4}$ maunds. Elsewhere, a cuntlam of cotton or tamarind is 8 maunds and that of jaggery 10 maunds.

LAND MEASURES.

The land measures vary in the different talooks.

In Honzaram the acre is used, sub-divided into fortieths (coontas), as in Bellary.

In Palcondah, Golcondah, and the ancient zemindarries :—

$88\frac{2}{5}$ square feet	= 1 coonchum.
20 coonchums	= 1 candy or pootty = 1,768 square feet.
30 candies	= 1 garce = 53,029 square feet = 1·21738 acres.

In other localities :—

3,315 square feet	= 1 parrah = ·07068 acre.
16 parrahs	= 1 veesam = the garce of preceding table.
16 veesams	= 1 cutty or cat'hee = 19·4782 acres.

The garce of land is supposed to be the extent that will yield a garce of grain. The 'net' garce of Vizagapatam is 1,800 seers, the same as in Ganjam; but the garce of land is about half what it is in Ganjam.

The areas of lands are still denoted by garces, pootties and coonchums, or parrahs, veesams and cutties according to the native accounts; but for purposes of measuring lands for the Government, these ancient local measures have now become practically obsolete. The English acre is now invariably the measure used for ascertaining the actual extent of lands.

For the purpose of converting the local measure into the English measure, the Inam department adopted 4 acres as 1 garce of dry land and 2 acres as 1 garce of wet land.

GRAIN MEASURES.

The following is the ordinary table :—

4 giddas	= 1 sola.
2 solas	= 1 tavva.
4 solas or 2 tavvas	= 1 maunica.
4 maunicas	= 1 coonchum.
20 coonchums	= 1 candy or pootty.
600 coonchums, or 30 candies	= 1 garce.

The 'coonchum' differs in different localities, as will be explained; but 600 coonchums, whatever their size, constitute a garce. The measures are always supposed to be heaped moderately.

The coonchum in Vizagapatam consists of 8 seers and that of Vizianagram 4 seers of 90 talahs each; at Ankapully and Yellamanchily, the coonchum is 4 seers of 80 tolahs each; elsewhere the tavva or $\frac{1}{8}$ coonchum is 33 tolahs. The weights given are of the assumed normal contents in rice.

The above are the standard measures. An examination of the measures actually in use throughout the district made in December 1884 showed that they varied from the standard measure as well as from each other both as regards the cubic capacity and assumed normal contents, and as regards the diameter. The test applied by the Government stamping establishment is that of volume of water, 90 tolahs of rice being considered equal to 47·2122 ounces of water. The price returns are rendered in the local standard measures, viz., the seer or tavva.

In Vizagapatam, a measure called 'marcam' of 4 seers is used to measure large quantities of gingelly seeds, horsegram and myrabolams. The salt marcam of 12 seers is not now in existence.

LIQUID MEASURES AND WEIGHTS.

The usual weight in towns is the cutcha seer, which is supposed to contain 24 rupees' weight of oil, ghee or milk. The pucka seer supposed to contain 80 tolahs of these liquids is also in use, and 12 such seers = 1 maund. The smaller grain measures are also used.

In the rural tracts, the gidda, sola, tavva, maunica, and coonchum are the usual liquid measures.

APPENDIX No. XCI.

DEPARTMENTAL REPORTS, &c., UTILIZED BY THE GOVERNMENT IN PREPARING THEIR ANNUAL ADMINISTRATION REPORT.

Chapter and Subject of the Administration report.	Departmental reports utilized.	Name of year for which the departmental report is prepared.
1	2	3
BODY OF THE REPORT.		
CHAPTER I.		
General and Political.		
Travancore State	Diwan's Report, Resident's Report, and Resident's Financial Report.	Malayalam.
Cochin State	Diwan's Report, Resident's Report, and Resident's Financial Report.	Malayalam.
Godavery Agency	Agent's Report	Official.
Ganjam Agency	Agent's Report	Official.
Vizagapatam Agency	Agent's Report	Official.
Poodoocottah	Report of Collector, Trichinopoly	Official.
Bunganapully	Report of Collector, Kurnool	Fusly.
Sundoor	Report of Collector, Bellary	Official.
Political pensions	Chepauk Agent's Report. Others from Collectors.	Official.
CHAPTER II.		
Administration of the Land.		
Government and alienated lands	Board's Jummahbundy Report	Fusly.
Surveys	Superintendent's Abstract Report	Official.
Revenue Settlement Department	Abstract Report of Director of Revenue Settlement.	Official.
Inam Commission	Board's Administration Report	Official.
Court of Wards	Court of Wards' Report	Fusly.
CHAPTER III.		
Protection.		
Legislation	Prepared in the Government Office	Official.
Police	Inspector-General's Report	Official.
Public charities	Report of Committee, Monigar Choultry and Police Commissioner's Lungherkhana Report.	Calendar.
Rewards	Returns from District Magistrates and Inspectors-General of Police and Jails.	Official.
Factories' Act	Returns from District Magistrates	Calendar.
Sulphur licenses	Returns from District Magistrates and Commissioner of Police.	Calendar.
Arms' Act	Returns from District Magistrates and Commissioner of Police.	Calendar.
Crime and offences	Criminal and Criminal Judicial Statistics ...	Calendar.
Vagrancy	Police Commissioner's Report, enclosed in Police Administration Report.	Calendar.
Criminal justice	High Court Report, and Criminal and Criminal Judicial Statistics.	Calendar.
Prisons	Report of Inspector-General of Jails	Calendar.
Civil justice	High Court Report, Small Cause Court Report, and Statistical Return of Probates.	Calendar.
Public charities—		
Monigar Choultry	Directors of the Monigar Choultry	Calendar.
Triplicane Lungherkhana	Commissioner of Police	Official.
Registration of assurances	Inspector-General's Report	Official.
Registration of joint stock companies	Registrar's Report	Official.
Military	Prepared in the Government Office, Military Department.	Official.
Marine	Report of Master Attendant, Madras	Official.
Agricultural protection	Board's Administration Report	Official.

Chapter and Subject of the Administration report.	Departmental reports utilized.	Name of year for which the departmental report is prepared.
1	2	3
CHAPTER IV.		
Production and Distribution.		
Weather, crops, wages and prices	Board's Administration Report	Official.
Government agricultural operations	Government Farms Report, through Board ...	Official.
Government horticulture	Director of Chinchona Plantations and Government Gardens.	Official.
Government chinchona		
Forests	Conservator's Report, through Board	Official.
Trade	Board's yearly Review of Trade and Navigation Statistics.	Official.
Public Works, General	Public Works Report on that Branch	Official.
Public Works, Buildings and Roads	Public Works Report on that Branch	Official.
Public Works, Irrigation	Public Works Report on that Branch	Official.
Public Works, Railways	Report of Consulting Engineer for Railways ...	Official.
Madras Imperial Post	Postmaster-General's Statistics	Official.
Madras District Post	Board's Administration Report	Official.
Madras Imperial Telegraph	Report of Superintendent of Telegraphs, Madras Division.	Official.
CHAPTER V.		
Revenue and Finance.		
Gross income and expenditure including the matters mentioned in separate orders of Government. Detailed income and expenditure.	Accountant-General's Report	Official.
Imperial Services Civil, General		
Land Revenue, financial		
Abkarry, financial and administrative ...	Extract from Board of Revenue Administration Report through Accountant-General.	Official.
Sea Customs, financial and administrative.		
Land Customs, financial and administrative.		
Salt, financial and administrative		
Stamps, financial and administrative ...		
Imperial Services, Military, financial ...	Accountant-General's Report	Official.
Imperial Services, Public Works, financial.		
Provincial Services, proper		
Local Funds at the unfettered disposal of Government for provincial purposes.		
Local Funds not at the unfettered disposal of Government for provincial purposes but limited to a special or local purpose.	Accountant-General's Report	Official.
Local Funds excluded from the public accounts.		
Loans by Government.		
Advances under Land Improvement Act ...		
Paper Currency Department	Accountant-General's Report	Official.
CHAPTER VI.		
Vital Statistics and Medical Services.		
General sanitary statistics	Sanitary Commissioner's Report	Calendar.
Sanitary, Local Fund Circles		
Sanitary, Municipalities		
Emigration	Board's Administration Report	Official.
Medical Relief and Public Health	Indian Medical Department Report	Official.
Vaccination	Sanitary Commissioner's Report	Official.
CHAPTER VII.		
Instruction.		
Educational Department	Director's Report	Official.
Analysis of Publications	Report of Registrar, Government Books	Calendar.
Madras Medical College	Principal's Report, through Director	Official.
Ootacamund Lawrence Asylum	Committee's Report	Official.
Uncovenanted Civil Service Examinations ...	Commissioner's Report	Official.
Arts	Report of Superintendent, School of Arts ...	Official.
Museums	Report of Superintendent, Government Central Museum.	Official.

Chapter and Subject of the Administration report.	Departmental reports utilized.	Name of year for which the departmental report is prepared.
1	2	3
CHAPTER VII—(*Continued*).		
Instruction—(Continued).		
Architecture	Report of Government Architect	Official.
Observatory	Government Astronomer's Report	Calendar.
Meteorology	Government Meteorologist's Report	Calendar.
Oriental Manuscripts	Report of the Curator of Oriental Manuscripts Library.	Official.
CHAPTER VIII.		
Archæology.		
Archæology	Prepared in the Government Office	Official.
CHAPTER IX.		
Miscellaneous.		
Local Fund Circle Administration	Board's Administration Report	Official.
Municipal Administration, Mofussil	Prepared in the Government Office	Official.
Municipal Administration, Madras Town ...	President's Report	Official.
Ecclesiastical	Bishop's Report	Official.
Stationery	Superintendent's Report	Official.
Government Press	Superintendent's Report	Official.
Lawrence Asylum Press	Report of the Committee	Calendar.
District Presses	Board's Administration Report	Calendar.
Chemical Examiner's Department	Report from the Chemical Examiner	Official.
STATISTICAL APPENDICES.		
DIVISION I.—*Statistics of Physical, Political, and Fiscal Geography*.		
A. (1) Area cultivated and uncultivated, and communications.	Return by Board of Revenue	Official.
(2) Character of the surface	Return by Superintendent, Revenue Survey, through Board.	Standing.
(3) Climate	Return by Government Astronomer	Calendar.
B. (1) Native States	Return by Resident, Travancore and Cochin and Political Officers.	Official.
(2) Native Chiefs, &c.	Return by Resident, Travancore and Cochin and Political Officers.	Official.
C. Civil Divisions of British Territory	Return by Board of Revenue	Official.
D. Population	Return by Board of Revenue	Official.
E. (1) *a*. Survey	Return by Superintendent, Revenue Survey, through Board.	Official.
b. Settlement	Return by Director, Revenue Settlement, through Board.	Official.
(2) Surveyed and assessed area in acres ...	Return by Director, Revenue Settlement, through Board.	Official.
(3) Tenures held direct from Government. (4) Tenures not held direct from Government. (5) Register of transfers ... ... (6) Land Revenue	Board of Revenue	Official.
DIVISION II.—*Statistics of Protection*.		
A. (1) Acts passed ... ... (2) Bills proposed or pending ... ... (3) Draft bills submitted to Government of India.	Prepared in Government Office	Official.
B. (1) Judicial tribunals, original and appellate.	Honorable the Judges of the High Court ...	Official.
(1. A.) (Supplement.) The number of European and Native Judicial Officers.	......	......

Chapter and Subject of the Administration report.	Departmental reports utilized.	Name of year for which the departmental report is prepared.
1	2	3
DIVISION II.—*Statistics of Protection*—(Continued).		
(2) Offences reported and persons tried, &c.		
(3) Miscellaneous Proceedings under C.P.C.	The Inspector-General of Police	Calendar.
(4) General result of criminal trials ...		
(5) Punishments inflicted		
(6) Appeal results		
(7) Number and nature of civil suits ...		
(8) Value of suits disposed of		
(9) General result of trial of civil and revenue suits.		
(10) Business of appellate courts	Honorable the Judges of the High Court ...	Calendar.
(11) Execution of decrees		
(12) Results of applications under Chapter XX of Act XIV of 1882.		
(13) Use of juries and assessors		
(14) Deeds registered in registration offices.	Inspector-General of Registration	Official.
C. (1) Distribution of prisoners		
(2) Number and disposal		
(3) Religion, age, and previous occupation.		
(4) Convicts according to nature and length of sentence.		
(5) Convicts who had been previously convicted.		
(5A) Escapes and recaptures	Inspector-General of Jails	Calendar.
(6) Offences and punishments		
(7) Education		
(8) Expenditure in guarding, &c.		
(9) Employment		
(10) Net cost of prisoners in jails		
(11) Sickness and mortality		
(12) Particulars regarding prisoners under trial.		
D. (1) Strength, cost, distribution, and employment of police.		
(2) Equipment, discipline, and general internal management.	Inspector-General of Police	Calendar.
(3) Race and religion or caste		
E. (1) Strength, cost, &c., of the army ...		
(2) Distribution and employment	Prepared in the Government Office, Military Department.	Official.
(3) Religion, race, and class of the native force.		
DIVISION III.—*Statistics of Production and Distribution.*		
A. (1) Revenue		
(2) Expenditure		
(3) Receipts and disbursements of the treasuries.	Accountant-General	Official.
B. (1) Public Works expenditure, civil and military.		
(2) Income and expenditure of Irrigation and Navigation works.	Prepared in the Government Office, Public Works Department.	Official.
C. Railways	Consulting Engineer for Railways	Official.
D. (1) Government vessels	Master Attendant	Official.
(2) Officers and men employed		
E. (1) Crops cultivated in acres		
(2) Stock		
(3) Rates of rent and produce		
F. (1) Price of produce		
(2) Price of labor		
G. Mines and quarries		
H. Manufactures		
I. (1) Importations from foreign countries ...		
(2) Exportation to foreign countries ...	Board of Revenue	Official.
(3) Collections of customs duty		
(4) Coasting trade		
(5) Vessels carrying cargoes from and to foreign countries.		
(6) Vessels carrying ballast from and to foreign countries.		
(7) Interportal trade		
K. (1) Coinage		
(2) Paper currency	Accountant-General	Official.
L. Charitable institutions	Board of Revenue	Official.

Chapter and Subject of the Administration report.	Departmental reports utilized.	Name of year for which the departmental report is prepared.
1	2	3
DIVISION IV.—*Statistics of Instruction.*		
A. Ecclesiastical	The Venerable the Archdeacon; Roman Catholic Bishop; Senior Chaplain, Church of Scotland; and the Secretaries of the Missionary Societies.	Official.
B. (1) Abstract return of colleges, schools, and scholars. (2) Abstract return of expenditure on Public Instruction. (3) Return of colleges, schools, and scholars. (4) Expenditure on Public Instruction ... (5) Stages of instruction of pupils in public schools. (6) Results of prescribed examinations ... (7) Distribution of Local Fund and Municipal expenditure on Public Instruction.	Director of Public Instruction	Official.
C. (1) Scientific and literary societies ...	Secretaries to the Societies, through Director of Public Instruction.	Official.
(2) The Press	Commissioner of Police, Madras, and District Magistrates.	Official.
DIVISION V.—*Statistics of Life.*		
A. (1) Births and deaths	Sanitary Commissioner	Calendar.
(2) Dispensary form	Surgeon-General, Indian Medical Department ...	Calendar.
(3) Vaccination returns	Inspector of Vaccination, through Sanitary Commissioner.	Official.

APPENDIX

TABLE OF PAY, ACTING ALLOWANCES, &c., FOR THE

APPOINTMENTS RESERVED BY

2 Members, Executive Council.
1 Chief Secretary to Government.
1 Revenue Secretary to Government.
2 Under Secretaries to Government.

2 Puisne Judges, High Court.

APPOINTMENTS USUALLY HELD BY COVENANTED

Registrar, High Court, Appellate Side.
Postmaster-General, Rupees 1,500 to 1,750.
Accountant-General, Rupees 2,250, 2,500, 2,750.

OTHER APPOINTMENTS

Director of Revenue Settlement, Rupees 2,333-5-4. (*d*)
Deputy Director, Revenue Settlement, Rupees 1,100, 750.
Superintendent, Revenue Survey, Rupees 1,500.
Assistant Superintendent, Revenue Survey.
Deputy do. do.
Deputy Commissioner, Salt Revenue, Rupees 1,200 to 1,400.
Deputy Conservator of Forests, 1st Grade, Rupees 900. (*e*)
President of the Municipal Commission for the Town of Madras, Rupees 1,800. (*f*)

Asst. Collrs. appointed before 1878.	Asst. Collrs. appointed after 1878.											
525 0 0 35 0 0 11 1 9 100 0 0	560 0 0 11 1 9 100 0 0	Unpassed Assistant Collectors get Rupees 385 / 11-1-9 / 100-0-0 but cannot officiate in a higher grade.										
671 1 9	671 1 9											
525 0 0 35 0 0 200 0 0	560 0 0 200 0 0	Asst. Resident, Travancore. (*a*) 600 0 0 175 0 0										
760 0 0	760 0 0	775 0 0										
525 0 0 35 0 0 140 0 0	560 0 0 140 0 0	600 0 0 100 0 0	Dy. Regr., High Court, Appel. Side. 700 0 0									
700 0 0	700 0 0	700 0 0										
525 0 0 35 0 0 200 0 0 25 0 0 100 0 0	560 0 0 200 0 0 25 0 0 100 0 0	600 0 0 168 5 4 25 0 0 100 0 0	700 0 0 68 5 4 25 0 0 100 0 0	Head Asst., Senior Asst., or Special Asst. Collr. appointed before 1878. 733 5 4 35 0 0 25 0 0 * 100 0 0	Head Asst., Senior Asst., or Special Asst. Collr. appointed after 1878. 768 5 4 25 0 0 * 100 0 0							
885 0 0	885 0 0	893 5 4	893 5 4	893 5 4	893 5 4							
525 0 0 35 0 0 200 0 0	560 0 0 200 0 0	600 0 0 200 0 0	700 0 0 100 0 0	733 5 4 35 0 0 31 10 8	768 5 4 31 10 8	Asst. Secy. to Govt., Judl. and Leg. Depts. 800 0 0						
760 0 0	760 0 0	800 0 0	800 0 0	800 0 0	800 0 0							
525 0 0 35 0 0 316 10 8	560 0 0 293 5 4	600 0 0 175 0 0 200 0 0	700 0 0 200 0 0	733 5 4 35 0 0 200 0 0	768 5 4 200 0 0	800 0 0 200 0 0	Under Secy. to Govt., Rev. Dept.					
876 10 8	853 5 4	975 0 0	900 0 0	968 5 4	968 5 4	1,000 0 0	1,000 0 0					
525 0 0 35 0 0 350 0 0	560 0 0 326 10 8	600 0 0 300 0 0	700 0 0 233 5 4	733 5 4 35 0 0 211 1 9	768 5 4 210 0 0	800 0 0 210 0 0	1,000 0 0 50 0 0	Under Secy. to Govt., Pub. Dept.				
910 0 0	886 10 8	900 0 0	933 5 4	979 7 1	978 5 4	1,010 0 0	1,050 0 0	1,050 0 0				
525 0 0 35 0 0 427 12 5 50 0 0 150 0 0	560 0 0 404 7 1 50 0 0 150 0 0	600 0 0 377 12 5 50 0 0 150 0 0	700 0 0 311 1 9 50 0 0 150 0 0	733 5 4 35 0 0 288 14 3 50 0 0 150 0 0	768 5 4 265 8 11 50 0 0 150 0 0	800 0 0 244 7 1 50 0 0 150 0 0	1,000 0 0 166 10 8 50 0 0 150 0 0	1,050 0 0 116 10 8 50 0 0 150 0 0	Sub-Collr. 1,166 10 8 50 0 0 150 0 0			
1,187 12 5	1,164 7 1	1,177 12 5	1,211 1 9	1,257 3 7	1,233 14 3	1,244 7 1	1,366 10 8	1,366 10 8	1,366 10 8			
525 0 0 35 0 0 427 12 5 50 0 0 170 0 0	560 0 0 404 7 1 50 0 0 170 0 0	600 0 0 377 12 5 50 0 0 170 0 0	700 0 0 311 1 9 50 0 0 170 0 0	733 5 4 35 0 0 288 14 3 50 0 0 170 0 0	768 5 4 265 8 11 50 0 0 170 0 0	800 0 0 244 7 1 50 0 0 170 0 0	1,000 0 0 166 10 8 50 0 0 170 0 0	1,050 0 0 116 10 8 50 0 0 170 0 0	1,166 10 8 50 0 0 170 0 0	Princl. Asst. Collector. 1,166 10 8 50 0 0 170 0 0		
1,207 12 5	1,184 7 1	1,197 12 5	1,231 1 9	1,277 3 7	1,253 14 3	1,264 7 1	1,386 10 8	1,386 10 8	1,386 10 8	1,386 10 8		
525 0 0 35 0 0 450 0 0 87 8 0	560 0 0 426 10 8 87 8 0	600 0 0 400 0 0 87 8 0	700 0 0 333 5 4 87 8 0	733 5 4 35 0 0 311 1 9 87 8 0	768 5 4 287 12 5 87 8 0	800 0 0 266 10 8 87 8 0	1,000 0 0 200 0 0 87 8 0	1,050 0 0 150 0 0 87 8 0	1,166 10 8 33 5 4 87 8 0	1,166 10 8 33 5 4 87 8 0	Dy. Direc., Rev. Settlement. 1,200 0 0 87 8 0	
1,097 8 0	1,074 2 8	1,087 8 0	1,120 13 4	1,166 15 1	1,143 9 9	1,154 2 8	1,287 8 0	1,287 8 0	1,287 8 0	1,287 8 0	1,287 8 0	
525 0 0 35 0 0 650 0 0	560 0 0 626 10 8	600 0 0 600 0 0	700 0 0 533 5 4	733 5 4 35 0 0 511 1 9	768 5 4 487 12 5	800 0 0 466 10 8	1,000 0 0 333 5 4	1,050 0 0 300 0 0	1,166 10 8 300 0 0	1,166 10 8 300 0 0	1,200 0 0 300 0 0	Sub-Secy., Board of Revenue.
1,210 0 0	1,186 10 8	1,200 0 0	1,233 5 4	1,279 7 1	1,256 1 9	1,266 10 8	1,333 5 4	1,350 0 0	1,466 10 8	1,466 10 8	1,500 0 0	1,500 0 0

NOTE.—The pay of a Puisne Judge, High Court, is Rupees 3,750, and an officer officiating in the
The pay of a Member of the Executive Council is Rupees 5,120 per mensem. An officer
(*a*) The Assistant Resident at Travancore draws also a special allowance of Rupees 175.
(*b*) The Collector of Sea Customs, Madras, draws also Rupees 100 as Protector of Emigrants.
(*c*) The Commissioner of Salt Revenue draws pay rising from Rupees 2,000 to 2,500 by five annual
The Commissioner of Salt Revenue draws also Rupees 250 as a fixed travelling allowance.
(*d*) The present Director of Revenue Settlement and Agriculture draws also a personal allowance
(*e*) With a fixed travelling allowance of Rupees 150.
(*f*) The salary of the President to be fixed by Government and paid out of the Municipal Fund
* Special Assistant Collectors of Vizagapatam, Ganjam, and Godavery and Senior Collectors of

No. XCII.

COVENANTED CIVIL SERVICE IN THE PRESIDENCY.

LAW FOR COVENANTED CIVILIANS.

3 Members, Board of Revenue.
1 Secretary, Board of Revenue.
1 Sub-Secretary, Board of Revenue.

REGULAR GRADES.

21 District and Sessions Judges.
1 Commissioner, Salt Revenue.(c)
1 Collector, Sea Customs.(b)
22 Collectors, Land Revenue.
15 Sub or Principal Assistant Collectors.
25 Head, Special, or Senior Assistant Collectors.
Assistant Collectors.

CIVILIANS THOUGH NOT RESERVED FOR THEM.

Resident, Travancore, Rupees 2,800.
Assistant do. Rupees 600.(a)

OPEN TO COVENANTED CIVILIANS.

Inspector-General of Police, Rupees 2,500.
Deputy do. Rupees 1,200.
Commissioner of Police, Rupees 1,500.
Deputy do. Rupees 750.
Assistant Inspector-General of Police, Rupees 900.
Superintendent of Police, Rupees 1,000, 800, 700.
Assistant do. Rupees 500.
Director of Public Instruction, Rupees 2,000 to 2,250.
Officers of the Graded List, Educational Department.
Inspector-General of Registration, Rupees 1,500.
Inspector-General of Jails, Rupees 1,833-5-4.
Superintendent of Central Jails, Rupees 600 to 850; 450 to 600.

Judge, Small Cause Court, Madras, Rupees 2,000 and 1,000.
Superintendent of Stamps and Stationery, Rupees 1,000.
Private Secretary to the Governor, Rupees 1,500.
Assistant Secretary to Government, Legislative Department, Rupees 800.
Magistrate of Police, Rupees 1,200, 1,000, 800.
Deputy Registrar, High Court, Appellate Side, Rupees 700.
Sheriff of Madras, Rupees 898.
Government Agent, Chepauk, Rupees 525.
Superintendent, Government Central Museum, Rupees 300.
Superintendent of School of Arts, Rupees 500.
Protector of Emigrants, Rupees 100.
Translators to Government:
- Teloogoo, Rupees 300.
- Tamul, Rupees 300.
- Persian and Hindostany, Rupees 300.
- Malayalam, Rupees 250.
- Canarese, Rupees 250.

ORDINARY DISTRICT DISTRIBUTION.

1 Collector.
1 District and Sessions Judge.
1 Sub-Collector.
1 Head Assistant Collector.
1 or more Assistant Collectors.

THE VARIATIONS FROM ORDINARY DISTRIBUTION OCCUR IN

Malabar and Tanjore ...	2 District and Sessions Judges.
Madras Town ...	1 Collector and no other staff.
South Canara, Bellary, Anantapore, Kurnool, Neilgherries and Trichinopoly.	No Sub-Collectors.
Chingleput	No Head Assistant Collector.
Ganjam	1 Senior Assistant Collector. 1 Special Assistant Collector.
Vizagapatam	1 Senior Assistant Collector. 1 Special Assistant Collector.
Godavery	1 Head Assistant Collector. 1 Special Assistant Collector.
Malabar	1 Head Assistant Collector. 1 Special Assistant Collector.

appointment draws full pay.
officiating in a full vacancy gets full pay; otherwise one-half in addition to a moiety of his substantive pay.

increments of Rupees 100.

of Rupees 416-10-8.

shall not be less than Rupees 1,800 or more than Rupees 2,500 per mensem. *Vide* Section 36 of Act I of 1884.
Vizagapatam and Ganjam draw fixed travelling allowance of Rupees 225 and 150, respectively.

TABLE OF PAY, ACTING ALLOWANCES, &c., FOR THE

Asst. Collrs. appointed before 1878.	Asst. Collrs. appointed after 1878.	Asst. Resident, Travancore.	Dy. Regr., High Court, Appel. Side.	Head Asst., Senior Asst., or Special Asst. Collr. appointed before 1878.	Head Asst., Senior Asst., or Special Asst. Collr. appointed after 1878.	Asst. Secy. to Govt., Judl. and Leg. Depts.	Under Secy. to Govt., Rev. Dept.	Under Secy. to Govt., Pub. Dept.	Sub-Collr.	Principal Asst. Collr.	Dy. Direc., Rev. Settlement.	Sub-Secy., Board of Revenue.	Regr., High Court, Appellate Side.
525 0 0 35 0 0 716 10 8	560 0 0 693 5 4	600 0 0 666 10 0	700 0 0 600 0 0	733 5 4 35 0 0 577 12 5	768 5 4 554 7 1	800 0 0 533 5 4	1,000 0 0 400 0 0	1,050 0 0 366 10 8	1,166 10 8 320 0 0	1,166 10 8 320 0 0	1,200 0 0 320 0 0	1,500 0 0 100 0 0	
1,276 10 8	1,253 5 4	1,266 10 8	1,300 0 0	1,346 1 9	1,322 12 5	1,333 5 4	1,400 0 0	1,416 10 8	1,486 10 8	1,486 10 8	1,520 0 0	1,600 0 0	1,600 0 0
525 0 0 35 0 0 850 0 0 50 0 0 150 0 0	560 0 0 826 10 8 50 0 0 150 0 0	600 0 0 800 0 0 50 0 0 150 0 0	700 0 0 733 5 4 50 0 0 150 0 0	733 5 4 35 0 0 711 1 9 50 0 0 150 0 0	768 5 4 687 12 5 50 0 0 150 0 0	800 0 0 666 10 8 50 0 0 150 0 0	1,000 0 0 533 5 4 50 0 0 150 0 0	1,050 0 0 500 0 0 50 0 0 150 0 0	1,166 10 8 422 3 7 50 0 0 150 0 0	1,166 10 8 422 3 7 50 0 0 150 0 0	1,200 0 0 400 0 0 50 0 0 150 0 0	1,500 0 0 300 0 0 50 0 0 150 0 0	1,600 0 0 200 0 0 50 0 0 150 0 0
1,610 0 0	1,586 10 8	1,600 0 0	1,633 5 4	1,679 7 1	1,656 1 9	1,666 10 8	1,733 5 4	1,750 0 0	1,788 14 3	1,788 14 3	1,800 0 0	2,000 0 0	2,000 0 0
525 0 0 35 0 0 983 5 4	560 0 0 960 0 0	600 0 0 933 5 4	...	733 5 4 35 0 0 844 7 1	768 5 4 821 1 9	800 0 0 800 0 0	1,000 0 0 666 10 8	1,050 0 0 633 5 4	1,166 10 8 555 8 11	1,166 10 8 555 8 11	1,200 0 0 533 5 4	1,500 0 0 400 0 0	1,600 0 0 400 0 0
1,543 5 4	1,520 0 0	1,533 5 4		1,612 12 5	1,589 7 1	1,600 0 0	1,666 10 8	1,683 5 4	1,722 3 7	1,722 3 7	1,733 5 4	1,900 0 0	2,000 0 0
525 0 0 35 0 0 983 5 4 50 0 0 170 0 0	560 0 0 960 0 0 50 0 0 170 0 0	600 0 0 933 5 4 50 0 0 170 0 0	...	733 5 4 35 0 0 844 7 1 50 0 0 170 0 0	768 5 4 821 1 9 50 0 0 170 0 0	800 0 0 800 0 0 50 0 0 170 0 0	1,000 0 0 666 10 8 50 0 0 170 0 0	1,050 0 0 633 5 4 50 0 0 170 0 0	1,166 10 8 555 8 11 50 0 0 170 0 0	1,166 10 8 555 8 11 50 0 0 170 0 0	1,200 0 0 533 5 4 50 0 0 170 0 0	1,500 0 0 400 0 0 50 0 0 170 0 0	1,600 0 0 400 0 0 50 0 0 170 0 0
1,763 5 4	1,740 0 0	1,753 5 4		1,832 12 5	1,809 7 1	1,820 0 0	1,886 10 8	1,903 5 4	1,942 3 7	1,942 3 7	1,953 5 4	2,120 0 0	2,220 0 0
...	...	600 0 0 1,155 8 11	...	733 5 4 35 0 0 1,066 10 8	768 5 4 1,043 5 4	800 0 0 1,022 3 7	1,000 0 0 888 14 3	1,050 0 0 855 8 11	1,166 10 8 777 12 5	1,166 10 8 777 12 5	1,200 0 0 755 8 11	1,500 0 0 555 8 11	1,600 0 0 488 14 3
		1,755 8 11		1,835 0 0	1,811 10 8	1,822 3 7	1,888 14 3	1,905 8 11	1,944 7 1	1,944 7 1	1,955 8 11	2,055 8 11	2,088 14 3
525 0 0 35 0 0 1,205 8 11 87 8 0	560 0 0 1,182 3 7 87 8 0	600 0 0 1,155 8 11 87 8 0	...	733 5 4 35 0 0 1,066 10 8 87 8 0	768 5 4 1,043 5 4 87 8 0	800 0 0 1,022 3 7 87 8 0	1,000 0 0 888 14 3 87 8 0	1,050 0 0 855 8 11 87 8 0	1,166 10 8 777 12 5 87 8 0	1,166 10 8 777 12 5 87 8 0	1,200 0 0 755 8 11 87 8 0	1,500 0 0 555 8 11 87 8 0	1,600 0 0 488 14 3 87 8 0
1,853 0 11	1,829 11 7	1,843 0 11		1,922 8 0	1,899 2 8	1,909 11 7	1,976 6 3	1,993 0 11	2,031 15 1	2,031 15 1	2,043 0 11	2,143 0 11	2,176 6 3
525 0 0 35 0 0 1,205 8 11 50 0 0 150 0 0	560 0 0 1,182 3 7 50 0 0 150 0 0	600 0 0 1,155 8 11 50 0 0 150 0 0	...	733 5 4 35 0 0 1,066 10 8 50 0 0 150 0 0	768 5 4 1,043 5 4 50 0 0 150 0 0	800 0 0 1,022 3 7 50 0 0 150 0 0	1,000 0 0 888 14 3 50 0 0 150 0 0	1,050 0 0 855 8 11 50 0 0 150 0 0	1,166 10 8 777 12 5 50 0 0 150 0 0	1,166 10 8 777 12 5 50 0 0 150 0 0	1,200 0 0 755 8 11 50 0 0 150 0 0	1,500 0 0 555 8 11 50 0 0 150 0 0	1,600 0 0 488 14 3 50 0 0 150 0 0
1,965 8 11	1,942 3 7	1,955 8 11		2,035 0 0	2,011 10 8	2,022 3 7	2,088 14 3	2,105 8 11	2,144 7 1	2,144 7 1	2,155 8 11	2,255 8 11	2,288 14 3
525 0 0 35 0 0 1,205 8 11 50 9 0 170 0 0	560 0 0 1,182 3 7 50 0 0 170 0 0	600 0 0 1,155 8 11 50 0 0 170 0 0	...	733 5 4 35 0 0 1,066 10 8 50 0 0 170 0 0	768 5 4 1,043 5 4 50 0 0 170 0 0	800 0 0 1,022 3 7 50 0 0 170 0 0	1,000 0 0 888 14 3 50 0 0 170 0 0	1,050 0 0 855 8 11 50 0 0 170 0 0	1,166 10 8 777 12 5 50 0 0 170 0 0	1,166 10 8 777 12 5 50 0 0 170 0 0	1,200 0 0 755 8 11 50 0 0 170 0 0	1,500 0 0 555 8 11 50 0 0 170 0 0	1,600 0 0 488 14 3 50 0 0 170 0 0
1,985 8 11	1,962 3 7	1,975 8 11		2,055 0 0	2,031 10 8	2,042 3 7	2,108 14 3	2,125 8 11	2,164 7 1	2,164 7 1	2,175 8 11	2,275 8 11	2,308 14 3
525 0 0 35 0 0 1,316 10 8 50 0 0 150 0 0	560 0 0 1,293 5 4 50 0 0 150 0 0	600 0 0 1,266 10 8 50 0 0 150 0 0	...	733 5 4 35 0 0 1,177 12 5 50 0 0 150 0 0	768 5 4 1,154 7 1 50 0 0 150 0 0	800 0 0 1,133 5 4 50 0 0 150 0 0	1,000 0 0 1,000 0 0 50 0 0 150 0 0	1,050 0 0 966 10 8 50 0 0 150 0 0	1,166 10 8 888 14 3 50 0 0 150 0 0	1,166 10 8 888 14 3 50 0 0 150 0 0	1,200 0 0 866 10 8 50 0 0 150 0 0	1,500 0 0 666 10 8 50 0 0 150 0 0	1,600 0 0 600 0 0 50 0 0 150 0 0
2,076 10 8	2,053 5 4	2,066 10 8		2,146 1 9	2,122 12 5	2,133 5 4	2,200 0 0	2,216 10 8	2,255 8 11	2,255 8 11	2,266 10 8	2,366 10 8	2,400 0 0
525 0 0 35 0 0 1,316 10 8 50 0 0 170 0 0	560 0 0 1,293 5 4 50 0 0 170 0 0	600 0 0 1,266 10 8 50 0 0 170 0 0	...	733 5 4 35 0 0 1,177 12 5 50 0 0 170 0 0	768 5 4 1,154 7 1 50 0 0 170 0 0	800 0 0 1,133 5 4 50 0 0 170 0 0	1,000 0 0 1,000 0 0 50 0 0 170 0 0	1,050 0 0 966 10 8 50 0 0 170 0 0	1,166 10 8 888 14 3 50 0 0 170 0 0	1,166 10 8 888 14 3 50 0 0 170 0 0	1,200 0 0 866 10 8 50 0 0 170 0 0	1,500 0 0 666 10 8 50 0 0 170 0 0	1,600 0 0 600 0 0 50 0 0 170 0 0
2,096 10 8	2,073 5 4	2,086 10 8		2,166 1 9	2,142 12 5	2,153 5 4	2,220 0 0	2,236 10 8	2,275 8 11	2,275 8 11	2,286 10 8	2,386 10 8	2,420 0 0
...	...	600 0 0 1,466 10 8	...	...	...	...	...	...	1,166 10 8 1,088 14 3	1,166 10 8 1,088 14 3	1,200 0 0 1,066 10 8	1,500 0 0 866 10 8	1,600 0 0 800 0 0
		2,066 10 8							2,255 8 11	2,255 8 11	2,266 10 8	2,366 10 8	2,400 0 0
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1,000 0 0 1,416 10 8	1,050 0 0 1,383 5 4	...	...	...	...	...
							2,416 10 8	2,433 5 4					
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	1,050 0 0 1,800 0 0	...	...	...	...	...
								2,850 0 0					
...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Second-grade Judge draws allowances as shown in this column

COVENANTED CIVIL SERVICE IN THE PRESIDENCY—(*Continued*).

Collector, 2nd Grade.*	Secy., Board of Revenue.	Collr., Neilgherries.	District and Sessions Judge, or Collector of Sea Customs.	Director of Revenue Settlement.	Collector.	Collector, Godavery.	Collector, Tanjore.	Collector, Ganjam, Vizagapatam.	Resident, Travancore.	3rd Member, Board of Revenue.	Rev. Secy. to Govt.	2nd Member, Board of Revenue.	Chief Secy. to Govt.	1st Member Board of Revenue
1,800 0 0 50 0 0 150 0 0														
2,000 0 0														
1,800 0 0 200 0 0														
2,000 0 0	2,000 0 0													
1,800 0 0 200 0 0 50 0 0 170 0 0	2,000 0 0 50 0 0 170 0 0	2,000 0 0 50 0 0 170 0 0												
2,220 0 0	2,220 0 0	2,220 0 0												
1,800 0 0 466 10 8	2,000 0 0 333 5 4	2,000 0 0 333 5 4												
2,266 10 8	2,333 5 4	2,333 5 4	2,333 5 4											
1,800 0 0 466 10 8 87 8 0	2,000 0 0 333 5 4 87 8 0	2,000 0 0 333 5 4 87 8 0	2,333 5 4 87 8 0	2,333 5 4 87 8 0										
2,354 2 8	2,420 13 4	2,420 13 4	2,420 13 4	2,420 13 4										
1,800 0 0 466 10 8 50 0 0 150 0 0	2,000 0 0 333 5 4 50 0 0 150 0 0	2,000 0 0 333 5 4 50 0 0 150 0 0	2,333 5 4 50 0 0 150 0 0	2,333 5 4 50 0 0 150 0 0	2,333 5 4 50 0 0 150 0 0									
2,466 10 8	2,533 5 4	2.533 5 4	2,533 5 4	2,533 5 4	2,533 5 4									
1,800 0 0 466 10 8 50 0 0 170 0 0	2,000 0 0 333 5 4 50 0 0 170 0 0	2,000 0 0 333 5 4 50 0 0 170 0 0	2,333 5 4 50 0 0 170 0 0	2,333 5 4 50 0 0 170 0 0	2,333 5 4 50 0 0 170 0 0	2,333 5 4 50 0 0 170 0 0								
2,486 10 8	2,553 5 4	2,553 5 4	2,553 5 4	2,553 5 4	2,553 5 4	2,553 5 4								
1,800 0 0 500 0 0 50 0 0 150 0 0	2,000 0 0 500 0 0 50 0 0 150 0 0	2,000 0 0 500 0 0 50 0 0 150 0 0	2,333 5 4 166 10 8 50 0 0 150 0 0	2,333 5 4 166 10 8 50 0 0 150 0 0	2,333 5 4 166 10 8 50 0 0 150 0 0	2,333 5 4 166 10 8 50 0 0 150 0 0	2,500 0 0 50 0 0 150 0 0							
2,500 0 0	2,700 0 0	2,700 0 0	2,700 0 0	2,700 0 0	2,700 0 0	2,700 0 0	2,700 0 0							
1,800 0 0 500 0 0 50 0 0 170 0 0	2,000 0 0 500 0 0 50 0 0 170 0 0	2,000 0 0 500 0 0 50 0 0 170 0 0	2,333 5 4 166 10 8 50 0 0 170 0 0	2,333 5 4 166 10 8 50 0 0 170 0 0	2,333 5 4 166 10 8 50 0 0 170 0 0	2,333 5 4 166 10 8 50 0 0 170 0 0	2,500 0 0 50 0 0 170 0 0	2,500 0 0 50 0 0 170 0 0						
2,520 0 0	2,720 0 0	2,720 0 0	2,720 0 0	2,720 0 0	2,720 0 0	2,720 0 0	2,720 0 0	2,720 0 0						
1,800 0 0 666 10 8	2,000 0 0 560 0 0	2,000 0 0 560 0 0	2,333 5 4 466 10 8	2,333 5 4 466 10 8	2,333 5 4 466 10 8	2,333 5 4 466 10 8	2,500 0 0 300 0 0	2,500 0 0 300 0 0						
2,466 10 8	2,560 0 0	2,560 0 0	2,800 0 0	2,800 0 0	2,800 0 0	2,800 0 0	2,800 0 0	2,800 0 0	2,800 0 0					
1,800 0 0 811 1 9	2,000 0 0 677 12 5	2,000 0 0 677 12 5	2,333 5 4 603 5 4	2,333 5 4 603 5 4	2,333 5 4 603 5 4	2,333 5 4 603 5 4	2,500 0 0 516 10 8	2,500 0 0 516 10 8	2,800 0 0 216 10 8					
2,611 1 9	2,677 12 5	2,677 12 5	2,936 10 8	2,936 10 8	2,936 10 8	2,936 10 8	3,016 10 8	3,016 10 8	3,016 10 8	3,016 10 8				
1,800 0 0 883 5 4	2,000 0 0 750 0 0	2,000 0 0 750 0 0	2,333 5 4 625 0 0	2,333 5 4 625 0 0	2,333 5 4 625 0 0	2,333 5 4 625 0 0	2,500 0 0 625 0 0	2,500 0 0 625 0 0	2,800 0 0 325 0 0	3,016 10 8 108 5 4				
2,683 5 4	2,750 0 0	2,750 0 0	2,958 5 4	2,958 5 4	2,958 5 4	2,958 5 4	3,125 0 0	3,125 0 0	3,125 0 0	3,125 0 0	3,125 0 0			
...	...	...	2,333 5 4 716 10 8	2,333 5 4 716 10 8	2,333 5 4 716 10 8	2,333 5 4 716 10 8	2,500 0 0 681 10 8	2,500 0 0 681 10 8	2,800 0 0 608 5 4	3,016 10 8 391 10 8	3,125 0 0 283 5 4			
			3,050 0 0	3,050 0 0	3,050 0 0	3,050 0 0	3,181 10 8	3,181 10 8	3,408 5 4	3,408 5 4	3,408 5 4	3,408 5 4		
...	...	...	2,333 5 4 944 7 1	2,333 5 4 944 7 1	2,333 5 4 944 7 1	2,333 5 4 944 7 1	2,500 0 0 833 5 4	2,500 0 0 833 5 4	2,800 0 0 750 0 0	3,016 10 8 733 5 4	3,125 0 0 625 0 0	3,408 5 4 341 10 8		
			3,277 12 5	3,277 12 5	3,277 12 5	3,277 12 5	3,333 5 4	3,333 5 4	3,550 0 0	3,750 0 0	3,750 0 0	3,750 0 0	3,750 0 0	
...	...	...	2,333 5 4 1,111 1 9	2,333 5 4 1,111 1 9	2,333 5 4 1,111 1 9	2,333 5 4 1,111 1 9	2,500 0 0 1,000 0 0	2,500 0 0 1,000 0 0	2,800 0 0 800 0 0	3,016 10 8 800 0 0	3,125 0 0 800 0 0	3,408 5 4 591 10 8	3,750 0 0 250 0 0	
			3,444 7 1	3,444 7 1	3,444 7 1	3,444 7 1	3,500 0 0	3,500 0 0	3,600 0 0	3,816 10 8	3,925 0 0	4,000 0 0	4,000 0 0	4,000 0

*...clusive of fixed travelling allowance and tentage.

APPENDIX No. XCIII.

RULES REGULATING THE CONNECTION OF PUBLIC SERVANTS WITH LAND-HOLDING AND COMMERCIAL SPECULATION.

(1) *Covenanted Civil Servants and Military Officers.*—Covenanted civil servants, military officers in civil employ, and all persons holding civil offices ordinarily held by covenanted or commissioned officers of the two classes above mentioned are prohibited from acquiring or holding land within the province in which they are employed or with the administration of which they are concerned, whether that connection be permanent or temporary. This prohibition does not extend to land occupied merely by buildings for residence and their usual appurtenances. (2) *Statutory Civil Servants.*—Natives of India appointed under the Statutory rules are permitted to hold any lands actually in their possession when they enter the service of Government, or which may come into their possession thereafter by inheritance, gift, i.e., bonâ fide gifts from relatives or near friends, or devise, provided that full information in respect of such lands is given to Government, which will consider in each case whether the fact of an officer holding any particular lands need be a bar to his employment in the district where these are situated. No fresh purchase of land is, however, allowed on the part of a Statutory civil servant without the previous sanction of Government. (3) *Uncovenanted Officers.*—Uncovenanted officers exercising independent judicial or revenue functions, whether of European, Eurasian or Native descent, are not debarred from acquiring or possessing landed property in British India for agricultural purposes, provided that they must not hold landed property in the districts in which they are employed. Although uncovenanted officers are not precluded from holding land, it is inexpedient that appointments which necessarily confer a considerable amount of power and influence on their occupants, such as those of moonsif, deputy collector, and tahsildar, should be filled by persons holding landed property within their jurisdiction. (4) *Declaration by officers of all classes.*—Officers of all classes (including candidates for office) are required to make a declaration of the fact of their being in possession of, or of their having acquired, landed property, stating the district within which it is situated, with such other particulars as may be considered necessary, of which registers are kept by Government. (5) *Management of landed property.*—No officer who may be in possession of landed property in British India or elsewhere, to whatever branch of the service he may belong, shall apply any portion of the time and attention which ought to be devoted to his public duties, whether civil or military, to the management of that property, and longer or more frequent leaves of absence are not permitted on that account. (6) *Acquisition and possession of landed property in Native States.*—Civil servants and military officers in the actual service of the Crown in India are prohibited from holding lands in a Native State for any purpose whatever. This prohibition does not extend to land occupied merely by buildings for residence and their usual appurtenances. (7) *Investments other than those in land for the profits of cultivation.*—With regard to investments other than those in land for the profits of cultivation, officers of every rank and class in the public service are expected to abstain from any investment (though of itself unobjectionable) which interests them privately in affairs or undertakings of the kind with which their public duty is connected. Subject to this general proviso, there is no objection to Government servants holding shares in mining or other companies (including agricultural companies) having for their object the development of the resources of the country, provided that they must not take part in the management of any such company, and that they must not be employed in the districts where the operations of the company with which they may be connected are carried on. This latter prohibition is held to apply sometimes with less, sometimes with greater, force to certain officers connected with the central administration, such as Members of Government, Members of the Board of Revenue and their Secretaries; and to indicate the necessity of great circumspection on the part of such officers as to the undertakings with which they become connected in any part of the province in which they are employed. The right of officers, civil and military, to hold shares in agricultural companies operating in Native States is regulated by the same rules as apply to their holding shares in similar companies within British territory. The Secretary of State has held that the standing orders as to the connection of Government officers with trading companies apply only to gazetted officers of the covenanted and uncovenanted services, and do not apply in the case of clerks and other ministerial officers in Government employ, with regard to whom the supervision of heads of departments is considered a sufficient check. (8) *Management and direction of companies.*—In the matter of taking part in the management of a company, it has been decided that the prohibition was not intended to apply to the participation of Government officers in the direction of those companies only which are designed to develop the resources of the country, but also to preclude such officers from taking part in the direction of such institutions as banks. It has also been held that the prohibition against officers taking part in the management of a company applies to public servants on leave equally with those in active service, but that it does not extend to officers who, with the consent of the Government of India, take service under Railway Companies working under concessions from Government, nor does it apply to the management of associations which are established bonâ fide for the purpose of mutual supply and not of trade and trade profit (provided in this latter case that the interests of Government do not suffer by the double employment of the officer concerned). Although the prohibition against taking part in the "management" of a company cannot, taken literally, be held to debar an officer from taking part as a promoter or as one of the applicants for registration in the Memorandum of Association, the Governor-General in Council has held that the danger against which the prohibition was aimed, namely, that of official influence being abused or official trust betrayed, is, under such circumstances, not much less than if the officer took part in the management after the company has been started. Government servants are therefore distinctly forbidden to take any part in the promotion or registration of companies. (9) *Speculation generally.*—It is a standing order that servants of Government are required to abstain from speculative investments, but no literal definition has been laid down as to the stage at which, or circumstances under which, the holding of land or other valuable property becomes speculative. It is obviously speculative to secure a grant of land supposed to be auriferous with the object of disposing of it hereafter to companies. Habitual speculation by officials has been always held to be an evil; and the Government has reserved to itself full power to deal stringently with the practice whenever it appears to prevail. The general distinction which exists between permanent and speculative investments is sufficiently described in the following extract from a Home department letter of the Government of India to the Government of Bengal:—"The Government of India consider that there exists an essential difference between permanent and speculative investments; that the distinction is one of motive, and that the frequency of a man's purchases and sales may be, and usually is, very good evidence of his motive in effecting them. If an officer habitually buys and sells securities of a value notoriously fluctuating, it is clear that he is addicted to speculation, and he thereby undoubtedly lays himself open to the disapproval of Government, which can be expressed in various ways, and in a degree proportionate to the nature of the dereliction. If he engages in such pursuits to an extent which attracts public notice and unfavorable remark, so that his integrity or his application to his public duties is discussed and doubted, then he has given rise to a scandal with which the Government will have to deal."

APPENDIX No. XCIV.

LIST OF THE HEADS OF EXECUTIVE DEPARTMENTS UNDER THE GOVERNMENT.

Department of the Secretariat with which most intimately connected.	Subject-matter of the Department.	Designation of the Head of the Department.
Ecclesiastical	Ecclesiastical	The Right Reverend the Bishop of Madras, the Vicar Apostolic of Madras, and the Senior Chaplain of the Church of Scotland.
Marine	Marine	Master Attendant.
Financial	Accounts	Accountant-General.
Educational	Instruction	Director.
	Examinations, Special Tests	Commissioner.
Military	Army discipline, &c.	Adjutant-General.
	Quartering and embarking troops ...	Quartermaster-General.
	Accounts	Controller.
	Medical	Surgeon-General, Her Majesty's Forces.
Revenue	Revenue, General	Board of Revenue.
	Revenue Settlement and Agriculture ...	Director.
	Revenue Survey	Superintendent.
	Cinchona, Parks and Government Gardens.	Director.
Public Works	General, and Irrigation	Chief Engineer.
	Railways, General	Consulting Engineer.
	Railways, Local	Engineers-in-Chief, State Railways.
	Accounts, General	Examiner, Public Works.
	Accounts, Railways	Examiners, Railway.
Judicial	Courts—	
	High	Chief Justice.
	District	District and Sessions Judges.
	Small Cause	Chief Judge.
	Presidency Magistrates	Chief Presidency Magistrate.
	Law	Advocate-General.
		Government Solicitor.
		Administrator-General.
		Government Pleader.
		Sheriff of Madras.
	Inquests	Coroner of Madras.
	Police	Inspector-General.
	Jails	Do.
	Registration	Do.
Public	Medical	Surgeon-General with the Government of Madras.
	Sanitation	Sanitary Commissioner.
	Examinations, Government	President, Board of Examiners.
	Astronomy	Astronomer.
	Meteorology	Reporter to the Government of Madras.
	Museum	Superintendent, Central Museum.
	Stationery	Superintendent.
	Emigration	Protector (Madras), and Consular Agents (Pondicherry and Caricaul).
	Translation	Government Translators.
	Postal	Postmaster-General.
	Telegraph	Chief Superintendents of Divisions.
Political	Native States	Residents and Political Agents.

APPENDIX No. XCV.

LIST OF STATIONS CONTAINING COURTS FOR CIVIL JUSTICE.

HIGH COURT AND PRESIDENCY SMALL CAUSE COURT.

Madras * (Shennappattanam, *Tam.*).

DISTRICT COURTS.

Chittore (Chittúru, *Tel.* Chittoor *).
Cuddalore * (Kúdalúr, *Tam.*).
Bellary * (Ballári, *Tel.*).
Mangalore * (Mangalúru, *Can.*).
Chingleput * (Shengalppattu, *Tam.*).
Coimbatore * (Kóyamuttúr, *Tam.*).
Cuddapah * (Kadapa, *Tel.*).
Berhampore * (Brahmapuramu, *Tel.*).
Rajahmundry * (Rájamahéndravaramu, *Tel.*).
Masulipatam * (Machilípatnamu, *Tel.*).
Kurnool * (Karnúlu, *Tel.*).
Madura * (Mathurai, *Tam.*).
Tellicherry * (Talashsheri, *Mal.*).
Calicut * (Kozhikkóta, *Mal.*).
Nellore * (Nellúru, *Tel.*).
Salem * (Shélam, *Tam.*).
Tanjore * (Tañjávúr, *Tam.*).
Palamcottah * (Pálaiyangóttai, *Tam.*).
Trichinopoly * (Tiruççináppalli, *Tam.*).
Vizagapatam * (Vishákhapatnamu, *Tel.*).

MILITARY SMALL CAUSE COURTS.

St. Thomas' Mount * (Parangimalai, *Tam.*).
Cannanore * (Kannúra, *Mal.*).

SUBORDINATE JUDGES' COURTS.

Tadpatry (Tádiparti, *Tel.* Tadpatri *).
Mangalore * (Mangalúru, *Can.*).
Ellore * (Ellúru, *Tel.*).
Cocanada * (Kákináda, *Tel.*).
Madura * (East) (Mathurai, *Tam.*).
Madura * (West) (Mathurai, *Tam.*).
Palghaut (Pálakkátu, *Mal.* Pálghat *).
Tellicherry * (Talashsheri, *Mal.*).
Calicut * (Kozhikkóta, *Mal.*).
Ootacamund * (Ottagaimandu, *Tam.*).
Tanjore * (Tañjávúr, *Tam.*).
Combaconam (Kumbagónam, *Tam.* Kumbakónam *).
Negapatam * (Nágappattanam, *Tam.*).
Tinnevelly * (Tirunelvéli, *Tam.*).

DISTRICT MOONSIF'S COURTS.

Tripatty (Tiruppathi, *Tam.* Tirupati *).
Poonamallee * (Púvirundamalli, *Tam.*).
Tiroovalore (Tiruválúr,* *Tam.*).
Tellicherry * (Talashsheri, *Mal.*).
Tanookoo (Tanuku,* *Tel.*).
Coimbatore * (Kóyamuttúr, *Tam.*).
Combaconam (Kumbagónam, *Tam.* Kumbakónam *).
Madura * (Mathurai, *Tam.*).
Valangimaun (Valangimán, *Tam.*).
Ambasamoodram (Ambásamuttiram, *Tam.* Ambásamudram *).
Tuticorin * (Túttukkudi, *Tam.*).
Salem * (Shélam, *Tam.*).
Cannanore * (Kannúra, *Mal.*).
Shiyally (Shiyyázhi, *Tam.* Shiyáli *).
Erode * (Íródu, *Tam.*).
Tanjore * (Tañjávúr, *Tam.*).
Cuddalore * (Kúdalúr, *Tam.*).
Peddapore (Peddápuramu, *Tel.* Peddápuram *).
Chingleput * (Shengalppattu, *Tam.*).
Trichinopoly * (Tiruççináppalli, *Tam.*).
Mangalore * (Mangalúru, *Can.*).
Badagara * (Vatakara, *Mal.*).
Shernaud (Chérnátu, *Mal.*).
Sholinghur * (Sholangippuram, *Tam.*).
Calicut * (Kozhikkóta, *Mal.*).
Arnee (Árani, *Tam.* Árni *).
Nellore * (Nellúru, *Tel.*).
Chidambaram * (Shithambaram, *Tam.*).
Kurnool * (Karnúlu, *Tel.*).
Bellary * (Ballári, *Tel.*).
Villoopooram (Villuppuram, *Tam.* Villupuram *).
Proddootore (Proddutúru, *Tel.* Proddutur *).
Baupatla (Bápatla,* *Tel.*).
Chowghaut (Chávakkátu, *Mal.* Chávakád *).
Madanapully (Madanapalle,* *Tel.*).
Krishnagherry (Kiruttinakkiri, *Tam.* Krishnagiri *).
Nundalore (Nandalúru, *Tel.* Nandalúr *).
Amalaupooram (Amalápuramu, *Tel.* Amalápuram *).
Ongole * (Vangólu, *Tel.*).
Poottoor (Puttúru, *Can.*).
Dindigul * (Tindukkal, *Tam.*).
Tritrapoondy (Tiruttaruppúndi, *Tam.* Tiruturaipúndi *).
Oodipy (Udipi,* *Can.*).
Cassergode (Kásaragódu, *Can.* Kásaragód *)
Bettatnaud (Bettattanátu, *Mal.*).
Tinnevelly * (Tirunelvéli, *Tam.*).
Gooty * (Gutti, *Tel.*).
Narraindevakery (Náráyanadévarakeri, *Tel.*).
Penoocondah (Penukonda,* *Tel.*).
Vizianagram * (Vijayanagaramu, *Tel.*).
Mayavaram (Máyavaram,* *Tam.*).
Shreeveicoontam (Shirívaikkundam, *Tam.* Srívaikuntham *).
Palghaut (Pálakkátu, *Mal.* Pálghat *).
Bimlipatam * (Bhímunipatnamu, *Tel.*).
Cauvaly (Kávali,* *Tel.*).
Vythery (Vaittiri, *Mal.* Vayitri *).
Tricalore (Tirukkóyilúr, *Tam.* Tirukoilúr *).
Nundiaul (Nandyála, *Tel.* Nandyál *).
Goontoor (Guntúru, *Tel.* Guntúr *).
Ariyaloor (Ariyalúr,* *Tam.*).
Angaudipooram (Annátippuram, *Mal.* Angádipuram *).
Bezwada (Bedzaváda, *Tel.* Bezváda *).
Vellore * (Vélúr, *Tam.*).
Vizagapatam * (Vishákhapatnamu, *Tel.*).
Puttoocottah (Pattukkóttai, *Tam.* Patukóta *).
Tiroomungalam (Tirumangalam,* *Tam.*).
Shreevillipoottore (Shirívillipputtúr, *Tam.* Srívilliputur *)
Chicacole * (Shríkákulamu, *Tel.*).
Ellore * (Ellúru, *Tel.*).
Vriddhachellam (Viruttáççalam, *Tam.* Vriddháchalam *).
Masulipatam * (Machilípatnamu, *Tel.*).
Yernaud (Éranátu, *Mal.* Ernád *).
Cuddapah * (Kadapa, *Tel.*).
Shivagunga (Shivakkangai, *Tam.* Sivaganga *).
Berhampore * (Brahmapuramu, *Tel.*).
Munnargoody (Mannárkkudi, *Tam.* Mannárgudi *).
Temmalapooram (Temmalappuram, *Mal.*).
Chittore (Chittúru, *Tel.* Chittoor *).
Caurampoody (Kárempúdi, *Tel.*).
Cumbum * (Kambhamu, *Tel.*).
Rajahmundry * (Rájamahéndravaramu, *Tel.*).
Tripatore (Tiruppattúr, *Tam.* Tirupatúr *).
Yellamanchily (Yallamanchili, *Tel.*).
Cocanada * (Kákináda, *Tel.*).

Trivaudy (Tiruváthi, *Tam.* Tiruvádi *).
Trivellore (Tiruvallúr,* *Tam.*).
Coondapore (Kundápura, *Can.* Coondapoor *.)
Tekkaly (Tekkali,* *Tel.*).
Aska * (Ashiká, *Tel.*).
Coolitalay (Kulittalai, *Tam.* Kulitalai *).
Oodamalpett (Udumalppéttai, *Tam.* Udamalpet *).
Nedoonganaud (Nedunnanátu, *Mal.*).
Quilandy (Koyilánti, *Mal.* Quilandi *).
Caurcal (Kárkala, *Can.*).
Taliparamba * (Talipparamba, *Mal.*).
Negapatam * (Nágappattanam, *Tel.*).
Caroor (Karúr,* *Tam.*).
Paramacoody (Paramakkudi, *Tam.* Paramakudi *).
Narsapore (Narasápuramu, *Tel.* Narsápur *).
Nadapooram (Nátáppuram, *Mal.*).
Namcull (Námakkal, *Tam.* Námakal *).
Cootnaud (Kuttanátu, *Mal.*).
Rajam (Rájamu, *Tel.*).
Parvatipore (Párvatípuramu, *Tel.* Párvatipur *).
Collegaul (Kollégálam, *Tam.* Kollegál *).
Anjengo * (Anchinnal, *Mal.*).
Goodalore (Kúdalúr, *Tam.* Gúdalúr *).
Pulney Hills (Pazhani, *Tam.* Palni *).

APPENDIX No. XCVI.

CURRICULA OF STUDY IN THE DIFFERENT CLASSES OF GOVERNMENT EDUCATIONAL INSTITUTIONS.

(1) Colleges.—Test prescribed for the B.A. Examination of the University, to which corresponds the course in the Tenth and Ninth Classes of the Colleges.

(1) English Language, in which each candidate must undergo examination.

(2) Optional Language. One of the following languages at the option of the candidate:—Sanscrit (in the Devanagaree character only), Greek, Latin, Arabic, Persian, Oordoo, Tamul, Teloogoo, Canarese, Malayalam, Ooriyah.

(3) Optional Branches. One of the following branches of knowledge at the option of the candidate:—*Branch I—Mathematics and Natural Philosophy*—(*a*) Pure Mathematics consisting of Algebra, Geometry, including Euclid and Conic Sections, Plane Trigonometry, Spherical Trigonometry, Theory of Equations, Analytical Geometry of two Dimensions, and the Differential Calculus. (*b*) Natural Philosophy—Dynamics, including Kinematics, Kinetics, and Statics; Hydrostatics and Pneumatics; Geometrical Optics; and Astronomy. *Branch II—Physical Science.*—(i), (*a*) Experimental Physics; (*b*) Inorganic Chemistry, Theoretical; (*c*) Inorganic Chemistry, Practical. (ii) One of the following at the option of the candidate:—(*a*) Mixed Mathematics and Advanced Physics; (*b*) Chemistry, Theoretical and Practical. *Branch III—Natural Science.*—(i) General Biology. (ii) One of the following sciences at the option of the candidate:—(*a*) Botany, (*b*) Animal Physiology, (*c*) Zoology, (*d*) Geology. *Branch IV—Mental and Moral Science.*—(i) Physiology, (ii) Psychology and General Philosophy, (iii) Logic, (iv) Ethics. *Branch V—History and Political Economy.*

(2) Colleges.—Test prescribed for the First Examination in Arts of the University, to which corresponds the course in the Eighth and Seventh Classes of the Colleges.

(1) English Language, in which each candidate must undergo examination.

(2) Optional Language. One of the following languages at the option of the candidate:—Sanscrit (in the Devanagaree character only), Greek, Latin, Arabic, Persian, Oordoo, Tamul, Teloogoo, Canarese, Malayalam, Ooriyah, French, German.

(3) Logic.

(4) Mathematics—Algebra, Geometry, and Plane Trigonometry.

(5) Elements of Human Physiology.

(6) History and Geography—(*a*) the History of England from A.D. 1485; (*b*) the History of Greece to its conquest by Rome; (*c*) the History of Rome to the fall of the Western Empire.

(3) High Schools.—Test prescribed for the Matriculation Examination of the University, to which corresponds the course in the Sixth or Matriculation Class of the Schools.

(1) English Language, in which each candidate must undergo examination.

(2) Optional Language. One of the following languages at the option of the candidate:—Sanscrit (in the Devanagaree character only), Greek, Latin, Arabic, Persian, Tamul, Teloogoo, Canarese, Malayalam, Oordoo, Ooriyah, French, German.

(3) Mathematics—(*a*) Arithmetic.—The first four rules, reduction, vulgar and decimal fractions, proportion, practice, extraction of the square root, interest, discount, present worth, and stocks. (*b*) Algebra—Addition, subtraction, multiplication, division, involution and evolution of algebraical quantities, and simple equations with easy problems. (*c*) Geometry—The first three books of Euclid with easy deductions.

(4) General Knowledge—(*a*) Elements of Physics; (*b*) Elements of Chemistry; (*c*) History—(1) the History of India (the whole), (2) the Outlines of the History of England; (*d*) Geography—General geography, and the geography of India in particular.

(4) HIGH SCHOOLS.—CURRICULUM OF THE FIFTH CLASS.

Subject.	Text-book.	Portion.	Remarks as to Inspector's examination, &c.
English Reading ...	Fowler's Sixth Reader, English Series.	The whole	The pupil's ability to construe and converse will be tested not only in the text-book, but also in new sentences not confined to any particular words and constructions. Suitable matter for holiday tasks will be found in the book. The dialogues and poetry must be learnt by heart.
English Writing ...	......	......	Books of school exercises to be exhibited. Each page to be dated and signed by the pupil.
English Dictation ...	The reading book in use or any other of equal difficulty.	Passages from portion not read.	Marks will be given both for writing and spelling.
Do. ...	Difficult words of less frequent occurrence selected by the teacher.	The words may be taken from Laurie's New Manual of English spelling, Webster's Guide to English spelling, or any similar book.	
English Grammar ...	Dr. Morris' (Macmillan's Primer Series).	Pages 1—40.	
English Composition.	Letters on simple subject.	The subjects to be named by the teacher.	The pupil must be taught how to address as well as to write a letter.
Translation from English into the vernacular. Translation from the vernacular into English.	The exercises in Fowler's Sixth Reader, English Series.	The whole	The pupil will be tested in translating passages which he has not previously seen, from and into the vernacular, without the aid of a grammar and dictionary.
Vernacular Reading.	Text-books prescribed for the Matriculation examination.	About half	The pupil must be able to answer questions on the meaning and subject-matter of the text-books, to recite 250 lines of the poetry and to read a few lines of poetry not previously studied, equal in difficulty to the text-book.
Vernacular Composition.	Short essays	The subjects to be named by the teacher.	Marks will be given for writing and spelling, as well as for matter and style.
Vernacular Grammar.	Tamul, Nunnool ... ... Teloogoo, Chinniah Soory Baula Vyaucaranam. Malayalam, Gundert's Bhasha Vyaucaranam. Canarese, Shaulah Vyaucarana. Ooriyah, Sadhananda Doss' Persian, Manazer-ul-Qwaid.	Letters and Sandhy. Pages 1—31. Pages 59—101. Pages 73—131. Pages 63—119. Pages 1—50.	
Arithmetic	Barnard Smith's and Bradshaw's.	Compound interest, extraction of square root, square and cubic measure, revision of the previous rules and miscellaneous questions in them.	
Algebra	Todhunter's Algebra for Beginners.	To the end of simple equations, and problems involving them.	
Geometry	Euclid	Books I and II with easy deductions.	
Geography	Clyde's Elementary Geography.	Africa, America and Oceania	Maps drawn during the year to be exhibited.
Do.	Duncan's Geography of India.	Page 106 to the end (para. 204 to the end).	
History of India ...	Dr. W. W. Hunter's ...	The remaining portion.	
History of England...	Miss Edith Thompson's ...	To the accession of George I.	
Chemistry	Roscoe's Primer	Pages 1—28 (articles 1—19).	
Physics	Balfour Stewart's Primer.	Pages 1—34 (articles 1—28).	

(5) MIDDLE SCHOOLS.—CURRICULUM OF THE UPPER FOURTH CLASS.

Subject.	Text-book.	Portion.	Remarks as to Inspector's examination, &c.
English Reading ...	Bradshaw's Fifth Reader, English Series.	The whole	The pupil's ability to construe and converse will be tested not only in the text-book, but also in new sentences containing only such words and constructions as the pupil has learned. Suitable matter for holiday tasks will be found in the book. The dialogues and poetry must be learnt by heart.
English Writing ...	......	......	Books of school exercises to be exhibited, each page to be dated and signed by the pupil.
English Dictation ...	The reading book in use or any other of equal difficulty.	Passages from portions not read.	Marks will be given both for writing and spelling.

(5) MIDDLE SCHOOLS.—CURRICULUM OF THE UPPER FOURTH CLASS—(*Continued*).

Subject.	Text-book.	Portion.	Remarks as to Inspector's examination, &c.
English Dictation ...	Difficult words in common use selected by the teacher.	The words may be taken from Laurie's New Manual of English spelling, Webster's Guide to English spelling, or any similar book.	
English Grammar ...	Manual of English Grammar, C.V.E.S.	Pages 69—176.	
Translation from English into the vernacular. Translation from the vernacular into English.	The exercises in Bradshaw's Fifth Reader, English Series.	The whole	The pupil will be tested in translating passages which he has not previously seen, but of the same degree of difficulty as those in the text-book from and into the vernacular with the aid of a grammar and dictionary. He will also be tested in translating somewhat easier passages without such aid.
Vernacular Reading and Text-book.	Tamul, Anthology, No. II.	Stanzas 139—220.	The pupil must be able to recite the portion prescribed and to answer questions on the meaning and subject-matter. The pupil will be required to read a few lines of poetry not previously studied equal in difficulty to the text-book.
	Teloogoo, Nalacharitram.	Pages 31—52.	
	Malayalam, Chanakya Sootram.	The whole.	
	Canarese, Poetical Anthology, published by the Basel Mission Press.	Stanzas 351—630, omitting prose passages.	
	Ooriyah, Ramayana, Soondra Kanda.	The remaining portion ...	
	Persian, Gulistan, Expurgated edition.	Chapters II and III ...	
Vernacular Composition.	A description of a place, an account of some useful, natural, or artificial product, or the like.	The subject named by the teacher.	Marks will be given for writing and spelling, as well as for matter and style.
Vernacular Grammar.	Tamul, Mahalingayya's ...	Pages 71—79 and general revision.	
	Teloogoo, Vencayya's ...	Pages 37—47 and general revision.	
	Malayalam, Gundert's Bhasha Vyaucaranam.	Pages 1—59.	
	Canarese, Shaulah Vyaucarana.	Pages 41—72.	
	Ooriyah, Sadhananda Doss'	Pages 15—63.	
	Persian, Sell's Zubdut-ul-Quawaneen.	The whole.	
Arithmetic	Barnard Smith's and Bradshaw's.	Compound proportion and simple interest. Revision of the previous rules and miscellaneous questions in them.	
Algebra	Todhunter's Algebra for Beginners.	To the end of fractions.	
Geometry	Euclid	Book I.	
Geography	Clyde's Elementary Geography.	Europe	Maps drawn during the year to be exhibited.
Do.	Duncan's Geography of India.	Pages 51—100, paras. 85—203.	
History of India ...	Dr. W. W. Hunter's ...	The next 80 pages.	
History of England ...	Miss Edith Thompson's ...	To the accession of Henry VIII.	

(6) MIDDLE SCHOOLS.—CURRICULUM OF THE LOWER FOURTH CLASS.

Subject.	Text-book.	Portion.	Remarks as to Inspector's examination, &c.
English Reading ...	Barrow's Fourth Reader, English Series.	The whole	The pupil's ability to construe and converse will be tested, not only in the text-book, but also in new sentences containing only such words and constructions as the pupil has learned. The book contains a tale to be read during the holidays. The dialogues must be learnt by heart. Ability to read will be tested in some book of equal difficulty, not previously studied.
English Writing ...	......	......	Books of school exercises to be exhibited, each page to be dated and signed by the pupil.
English Dictation ...	The reading book in use, or any other of equal difficulty.	Passages from portion not read.	
Do. ...	Difficult words in common use selected by the teacher.	The words may be taken from Laurie's New Manual of English spelling, Webster's Guide to English spelling, or any similar books.	Lists of these words should be written out by the pupils, pending their insertion in a new edition of the Fourth Reader.
English Grammar ...	Manual of English Grammar, C.V.E.S.	Pages 1—69.	

(6) MIDDLE SCHOOLS.—CURRICULUM OF THE LOWER FOURTH CLASS—(*Continued*).

Subject.	Text-book.	Portion.	Remarks.
Translation from English into the vernacular. Translation from the Vernacular into English.	The exercises in Appendix E of Barrow's Fourth Reader.	The whole	The pupil will be tested in translating passages, which he has not previously seen, but of the same degree of difficulty as those in App. E from and into the vernacular with the aid of a grammar and dictionary. He will also be tested in translating somewhat easier passages without such aid.
Vernacular Reading and Text-book.	Tamul, Anthology No. II.	Stanzas 60—138	The pupil must be able to recite the portion prescribed and to answer questions on the meaning and subject-matter. The pupil will be required to read a few lines of poetry, not previously studied, equal in difficulty to the text-book.
	Teloogoo, Nalacharitram.	Pages 13—30.	
	Malayalam, Punchatantram (Garthwaite's edition).	The remaining portion ...	
	Canarese, Poetical Anthology, published by the Basel Mission Press.	Stanzas 151—350.	
	Ooriyah, Ramayana, Soondra Kanda.	Pages 20—49	
	Persian, Goolistan, expurgated edition.	Chapter I	
Vernacular Composition.	A letter or petition ...	Any subject named by the teacher.	Marks will be given for writing and spelling as well as for matter and style.
Vernacular Grammar.	Tamul, Mahalingayya's ...	Pages 41—70.	
	Teloogoo, Vencayya's ...	Pages 19—36.	
	Malayalam, Gundert's and Garthwaite's Catechism of Malayalam Grammar, Diglott edition.	The portion learned in Malayalam to be revised in the English on the opposite page.	
	Canarese, Sala, Vyakaranam.	Pages 1—41.	
	Ooriyah, Sadhanandha Doss'.	Pages 1—15.	
	Persian, Sell's Zubdut-ul-Quawaneen.	Page 26 to the end.	
Arithmetic	Barnard Smith's and Bradshaw's.	Practice and simple proportion, revision of previous rules and miscellaneous questions in the compound rules, and vulgar and decimal fractions.	
Geometry	Euclid	Book I to the end of 16th proposition both in the vernacular and in English.	
Geography	Clyde's Elementary Geography.	Asia	Maps drawn during the year to be exhibited.
Do.	Duncan's Geography of India.	Pages 1—51, paras. 1—84.	
History of India ...	Dr. W. W. Hunter's ...	About 60 pages.	
History of England...	Miss Edith Thompson's ...	To the accession of Henry II.	

(7) MIDDLE SCHOOLS.—CURRICULUM OF THE THIRD CLASS.

Subject.	Text-book.	Portion.	Remarks.
English Reading ...	Marden's Third Reader, English Series.	The whole	The pupil's ability to construe and converse will be tested not only in the text-book, but also in new sentences, containing only such words and constructions as the pupil has learned. Appendix A will afford matter for holiday tasks. The dialogues must be learnt by heart. Ability to read will be tested in some book of equal difficulty, not previously studied, due allowances being made for words with the pronunciation of which the pupil cannot be expected to be acquainted.
English Writing ...	Vere Foster's, Morgan's, or any series of copy-books or copy-slips sold at the Central Book Depôt.	Small hand	One hundred pages to be exhibited, each page to be signed and dated by the pupil.
English Dictation ...	The reading book in use...	Short passages from the portion read.	Marks will be given both for writing and reading.
Do. ...	Do. App. C. ...	The whole of the words given, especially those which are alike in sound, but which differ in spelling and meaning.	
English Grammar ...	Grammatical Primer, C. V. E. S., or Morgan's Elementary Grammar.	The whole.	

(7) MIDDLE SCHOOLS.—CURRICULUM OF THE THIRD CLASS—(*Continued*).

Subject.	Text-book.	Portion.	Remarks.
Translation from English into the vernacular. Translation from the vernacular into English.	The exercises in Appendix E of Marden's Third Reader.	The whole.	The pupil will be tested in translating easy sentences or passages, which he has not previously seen, but of the same degree of difficulty as those in Appendix E, from and into the vernacular, with the aid of a grammar and dictionary.
Vernacular Reading.	Tamul, Teloogoo, Malayalam and Canarese Krishnamacharriar's Fourth Reader, Madras School Series.	The whole	The pupil must be able to answer questions on the meaning and subject-matter. The entertaining portions of the book will afford suitable matter for holiday tasks. The examination will bear chiefly on the more instructive portions. The pupil will be required to read a few lines of poetry, not previously studied, equal in difficulty to the Anthology, No. I.
	Ooriyah, Hitopodesh ...	Parts III and IV	Do. as far as applicable.
	Persian, Majmuah-i Salees, Harris' School edition.	The whole	Do. do.
Vernacular Writing...	......	......	Books of school exercises to be exhibited, each page to be dated and signed by the pupil.
Vernacular Dictation.	Tamul, Teloogoo, Malayalam, Canarese and Ooriyah. Any book, not read in the class, equal in difficulty to the reading book in use.	Passages from any portion...	Marks will be given both for writing and spelling.
	Persian, Majmuah-i-Salees, Harris' School edition.	Any passage from part read.	
Vernacular Poetry ...	Tamul, Anthology No. II.	Stanzas 1—59	The pupil must be able to recite the portion prescribed and to answer questions on the meaning and subject-matter.
	Teloogoo, Nalacharitram.	Pages 1—12	
	Malayalam, Panchatantram. Garthwaite's edition.	Part I	
	Canarese, Poetical Anthology, published by the Basel Mission Press.	Stanzas 1—150	
	Ooriyah, Ramayana Soondra Kanda.	Pages 1—20	
Vernacular Grammar.	Tamul, Mahalingayya's ...	Pages 1—40.	
	Teloogoo, Vencayya's ...	Pages 1—18.	
	Malayalam, Garthwaite's and Gundert's Catechism.	To the end.	
	Canarese, Catechism of, Mangalore edition.	Revision of the whole.	
	Ooriyah, Lacey's ...	64—100, with revision of the whole.	
	Persian, Sell's Zubdut-ul Quawaneen.	Page 26 to the end.	
Arithmetic	Vernacular translation of Colenso.	Miscellaneous questions in the compound rules and vulgar fractions, decimal fractions, and easy questions involving the application of them.	
Geography	Vernacular translation of Duncan's Introduction to the Geography of the World.	Part II, Europe.	Maps drawn during the year to be exhibited.
History	Vernacular translation of the World's History, Madras School Book Society.	Chapter XXVI—XLV.	
Agriculture	Robertson's Agricultural Class Book.	Parts IV, V and VI ...	This subject may be read instead of history in rural schools.

(8) UPPER PRIMARY SCHOOLS.—CURRICULUM OF THE SECOND CLASS.

Subject.	Text-book.	Portion.	Remarks.
English Reading ...	Garthwaite's Second English Book, English Series.	The whole	The pupil's ability to construe and converse will be tested not only in the text-book but also in new sentences, containing only such words and constructions as occur in the text-book. Ability to read will be tested in some book of equal difficulty, not previously studied, due allowances being made for words with the pronunciation of which the pupil cannot be expected to be acquainted.

(8) UPPER PRIMARY SCHOOLS.—CURRICULUM OF THE SECOND CLASS—(*Continued*).

Subject.	Text-book.	Portion.	Remarks.
English Writing ...	Vere Foster's, Morgan's, or any series of copy-books or copy-slips, sold at the Central Book Depôt.	Round hand	One hundred pages to be exhibited, each page to be signed and dated by the pupil.
English Dictation ..	The reading book in use ...	Sentences from the portion read.	Marks will be given both for writing and spelling.
English Grammar ...	Oral lessons	The remaining parts of speech.	
	The grammatical portion of Garthwaite's Second English Reader.	The whole	The pupil must be able to make easy applications of what he has learnt to the reading book.
Translation from English into the vernacular. Translation from the vernacular into English.	As contained in Garthwaite's Second English Book.	The whole	The pupil will be tested in translating very easy sentences, which he has not previously studied, from and into the vernacular with the aid of a grammar and dictionary.
Vernacular Reading.	Tamul, Teloogoo, Malayalam, and Canarese—Vizianagram Third Reader, Madras School Series.	The whole	The pupil must be able to answer questions on the meaning and subject-matter. The entertaining portions of the book will afford suitable matter for holiday tasks. The examinations will bear chiefly on the more instructive portions. Reading will be tested in some book of equal difficulty not previously studied.
	Ooriyah—Hitopodesh	Parts I and II	Do. as far as applicable.
	Hindostany—Majmuah-i-Sakhun, Part I.	Prose bearing on the first 200 lines of the poetry.	Do. do.
	Any ordinary manuscript.		
Vernacular Writing...	Copy-books or copy-slips ...	Running hand	One hundred pages to be exhibited, each page to be dated and signed by the pupil.
Vernacular Dictation.	Any book not read in the class, equal in difficulty to the reading book in use.	Passages from any portion.	
Vernacular Poetry.	Tamul, Teloogoo, Malayalam, or Canarese—Anthology No. I.	The next 200 lines	The pupil must be able to recite the portion prescribed and to answer questions on the meaning and subject-matter.
	Ooriyah—Saro Sangraho ...	Do.	
	Hindostany—Majmuah-i-Sakhun, Part I.	The first 200 lines	
Vernacular Grammar.	Tamul—Pope's No. I	Pages 1—15 and 43—53 ...	With parsing and applications of the rules to the reading book.
	Teloogoo—Sesiah's ...	Pages 15—56	
	Malayalam—Gundert's and Garthwaite's Catechism.	Etymology	
	Canarese—Catechism of—Mangalore Edition.	The remaining half ...	
	Ooriyah—Lacey's	Pages 1—64	
	Hindostany—Sell's Khulasat-ul-Quawaneen.	The whole	
Arithmetic ...	Vernacular translation of Colenso.	Miscellaneous questions in reduction and the compound rules, greatest common measure, least common multiple, vulgar fractions and easy questions involving the application of them.	
	Mental	Bazaar transactions.	
Geography	Vernacular translation of Duncan's Introduction to the Geography of the World.	Part I.—Introduction and Asia.	Maps drawn during the year to be exhibited.
History	Vernacular translation of the World's History, Madras School Book Society.	Chapters X---XXV.	
Agriculture	Vernacular translation of Robertson's Agricultural Class Book.	Parts II and III	This subject may be studied instead of history in rural schools. It is compulsory in addition to history in elementary normal schools and practising schools.
Hygiene	Cunningham's Sanitary Primer.	The whole.	
In Girls' Schools.			
Needlework ...	Oral and practical from the teacher.	Cutting out and working on fine cloth a native man's jacket, or a native woman's jacket and a petticoat finely made.	Work to be exhibited.
Singing	Do. do. ...	Left to the discretion of the teacher.	The teaching of this subject is optional.

(9) Lower Primary Schools.—Curriculum of the First Class.

Subject.	Text-book.	Portion.	Remarks.
English Reading ...	Garthwaite's First English Book, Madras School Series.	The whole	The pupil's ability to construe and converse will be tested not only in the text-book, but also in new sentences containing only such words and constructions as occur in the text-book. Ability to read will be tested in some book of equal difficulty not previously studied, due allowances being made for words with the pronunciation of which the pupil cannot be expected to be acquainted.
English Writing ...	Vere Foster's, Morgan's, or any series of copy-books or copy-slips sold at the Central Book Depôt.	Large hand	One hundred pages to be exhibited, each page to be dated.
English Dictation ...	The reading book in use ...	Words from the portion read.	Marks will be given both for writing and spelling.
English Grammar ...	Oral lessons ... ... The grammatical portion of Garthwaite's First English Book, Madras School Series.	Nouns, adjectives, and verbs. The whole	To be taught in connection with the reading lesson.
Translation from English into the vernacular. Translation from the vernacular into English.	As contained in Garthwaite's First English Book. Vide "Directions to the Teacher."	The whole.	
Vernacular Reading.	Tamul, Teloogoo, Malayalam, or Canarese—Joyes' Second Reader, Madras School Series.	The whole	The pupil must be able to answer questions on the meaning and subject-matter. The stories and fables will afford suitable matter for home lessons and holiday tasks. The annual examinations will bear chiefly on the other portions of the book. Reading will be tested in some book of equal difficulty not previously studied.
	Ooriyah—Niti Kotho, Parts II and III.	Do.	Do. as far as applicable.
	Hindostany—Second Book of Colonel Holroyd's Series, Talim-ul-Mubtadi.	Do.	
	Any plainly written manuscript.		
Vernacular Writing ...	Copy books or slips	Small hand	One hundred pages to be exhibited, each page to be dated and signed.
Vernacular Dictation.	Any book not read in the class, equal in difficulty to the reading book in use.	Short passages	Marks will be given both for writing and spelling.
Vernacular Poetry.	Tamul, Teloogoo, Malayalam, or Canarese—Anthology No. I. Ooriyah—Sara Sangrano. Hindostany—Risala-i-Manzumah.	The next 100 lines	The pupil must be able to recite the portion prescribed and to answer questions on the meaning and subject-matter.
Vernacular Grammar.	Tamul—Pope's No. I ... ... Teloogoo—Seshiah's ... Malayalam—Garthwaite's Essentials of—. Canarese—Catechism of—Mangalore Edition. Ooriyah—Byakorono Munjery. Hindostany—Sell's Khulasat-ul-Quawaneen.	Pages 16—43 (Etymology)... Pages 1—14 ... ... The whole ... ... First half ... ... The whole ... ... Pages 1—20	The pupil must be able to make easy applications of the rules to the reading book.
Arithmetic ...	Vernacular Translation of Colenso, Part I.	Reduction and the compound rules restricted to the Indian weight, measure, and money tables published by the Director of Public Instruction.	The pupil's ability to answer easy miscellaneous questions will be tested, but the examination will consist chiefly in working sums in the rules named.
	Mental	The simple rules.	
Geography ...	Orally from the map of the Madras Presidency. Vernacular translation of a Short Account of the Madras Presidency, Madras School Book Society.	Districts, chief towns, principal rivers and mountains. Introduction, and district in which the school is situated.	

(9) Lower Primary Schools.—Curriculum of the First Class—(*Continued*).

Subject.	Text-book.	Portion.	Remarks.
History	Vernacular translation of the World's History, Madras School Book Society.	Chapters I—IX.	
Agriculture	Vernacular translation of Robertson's Agricultural Class Book.	Part I, Soils	This subject may be studied instead of history in rural schools. It is compulsory in addition to history in elementary normal schools and practising schools.
In Girls' Schools.			
Needlework ...	Oral and practical from the teacher.	Gathering, back-stitching, working button holes, and darning on calico; generally such work as is on the sleeve of a somewhat coarse shirt or a native man's jacket.	Work to be exhibited.
Singing	Do. do. ...	Left to the discretion of the teacher.	The teaching of this subject is optional.

(10) Lower Primary Schools.—Curriculum of the Preparatory Class B.

Subject.	Text-book.	Portion.	Remarks.
Vernacular Reading.	Tamul, Teloogoo, Malayalam, or Canarese—Garthwaite's First Book of Lessons, Madras School Series, Part II. Ooriyah—Niti Kotha, Part I. Hindostany—First Book of Colonel Holroyd's Series, Talium-ul-Mubtadi.	The whole	The pupil must be able to answer simple questions on the meaning and subject-matter. Reading will be tested in some book of equal difficulty not previously studied.
Vernacular Writing ...	Copy books or slips	Round hand	Seventy-five pages to be exhibited. Each page to be dated and signed.
Vernacular Dictation.	Any book not used in the class equal in difficulty to the reading book in use.	Short sentences.	
Vernacular Poetry.	Tamul, Teloogoo, Malayalam, or Canarese—Anthology, No. I. Ooriyah—Saro Sungraho. Hindostany—Risala-i-Manzumah.	Fifty lines	The pupil must be able to recite the portion prescribed and to answer simple questions on the meaning and subject-matter.
Vernacular Grammar.	Oral lessons	Nouns, adjectives, and verbs.	To be taught in connection with the reading lesson.
Arithmetic	Vernacular translation of Colenso, Part I.	Notation and numeration to seven places of figures. Multiplication table to 12 times 16. Four simple rules.	
Geography	Orally from the map	The chief divisions, towns, rivers, and mountains of the district in which the school is situated.	
In Girls' Schools.			
Needle-work ...	Oral and practical instruction from the teacher.	Hemming, top-sewing, and felling on fine cloth.	Work to be exhibited.
Singing	Do. do. ...	Left to the discretion of the teacher.	The teaching of this subject is optional.

(11) Lower Primary Schools.—Curriculum of the Preparatory Class A.

Subject.	Text-book.	Portion.	Remarks.
Vernacular Reading.	Tamul, Teloogoo, Malayalam, or Canarese—Garthwaite's First Book of Lessons, Madras School Series, Part I. Ooriyah Primer (Borno Bodho). Hindostany Primer of Colonel Holroyd's Series, Talim-ul-Mubtadi.	The whole	The pupil must be able to answer very simple questions on the meaning and subject-matter. Reading will be tested in some book of equal difficulty not previously studied.
Vernacular Writing ...	Copy books or slips	Large hand	Fifty pages to be exhibited, each page to be dated.
Vernacular Dictation.	The reading book in use ...	Words from the portion read.	
Arithmetic ...	Tamul, Teloogoo, Malayalam, Canarese, or Hindostany—Translation of Colenso, Part I. Ooriyah—Patiganita.	Notation and numeration to four places of figures. Multiplication table to 4 times 16. Simple addition of numbers of four figures in five lines.	English figures must be used in this as well as in the higher classes.
In Girls' Schools.			
Needlework ...	Oral and practical instruction from the teacher.	Hemming on calico or coarse cloth.	Work to be exhibited.
Singing	Do. do. ...	Left to the discretion of the teacher.	The teaching of this subject is optional.

(12) Primary Schools.—Special Vernacular Curriculum.

(This is prescribed for European, East Indian, and Mahomedan boys, who are required to study the vernacular of the district in which they are living.)

Subject.	Text-book.	Portion.	Remarks.
	Upper Primary Schools—Second Class.		
Reading	Tamul, Teloogoo, Malayalam, or Canarese. Garthwaite's School Series. Ooriyah Primer, Borno Bodho.	Part II ... ... Remaining half.	The pupil must be able to construe any passage in the part read. His reading will be tested in some book of equal difficulty not previously studied.
Writing	Copy-books or copy-slips ...	Round hand	Seventy-five pages to be exhibited, each page to be dated and signed.
Dictation.	The reading book in use ...	Words from the portion read.	
	Lower Primary Schools—First Class.		
Reading	Tamul, Teloogoo, Malayalam, or Canarese. Garthwaite's First Book of Lessons, Madras School Series. Ooriyah Primer, Borno Bodho.	Part I ... ... Half.	The pupil must be able to construe any passage in the part read. His reading will be tested in some book of equal difficulty not previously studied.
Writing	Copy-books or copy-slips ...	Large hand	Fifty pages to be exhibited. Each page to be dated.
Dictation	The reading book in use ...	Words from the portion read.	

(13) Curriculum in Elementary Normal Schools.

The following standing order summarizes the course of study pursued by students in normal schools and the general management of these schools, but Inspectors can modify the scheme to suit local requirements.

"Students in elementary normal schools have to be taught as well as trained. During the year that they remain under instruction they must go through all the vernacular subjects prescribed for the Special Upper Primary Examination, as given in Schedule C of the Grant-in-Aid Code, although they cannot bring up more than two of the alternative subjects. They must also go through the first, second, and third readers, although these are not prescribed for the examinations, and must be instructed in hand-writing on some approved system, in mental arithmetic, and in map-drawing, including the ability to fill up the outlines of the world on an earthenware globe. The best of these maps and this globe will be eventually handed over to them to take with them to their schools. Instruction in all these subjects will be given by the second master, who will also be required to teach the normal students how to keep school registers and to prepare the prescribed returns from them. The main duty of the headmaster will be to train the normal students. The general principles of school management should be inculcated, and detailed instruction of an elementary kind should be given on the teaching of such subjects as are taught in village schools. The practising classes will be taught entirely by the normal students under the direct supervision of the headmaster, and no student should be allowed to teach any lesson which he has not prepared. This preparation should be evidenced by written notes bearing the headmaster's remarks, and filed for inspection by the Inspector or Deputy Inspector. There should be a daily review and criticism of the work done by the students in the practising branch. For this purpose every student should have a supervision book, and in it the headmaster should enter at the time any defects which he may have to notice in his teaching. After the practising branch is dismissed, the student teachers should form a class, and the headmaster should read out his remarks from the supervision book, and call on the class to say how the errors might have been avoided and how the defects should be remedied. The instruction given during this time should be summarized on the blackboard and copied by the students into note-books kept by them for the purpose. On Saturday afternoons the headmaster should give a model lesson, and this should be followed by a criticism lesson, during which only those classes of the practising school which are required for the model or criticism lesson should attend. An hour twice a week will suffice for instruction in method, and during this time the second master must supervise the practising branch. Every student should be required to keep a method book, in which he will be required to enter the principles taught at criticism and model lessons, at the weekly lectures and at the daily reviews. The practising branch will be organized so as to be as far as possible a model of the village school, to which the normal student will have ultimately to proceed. There will be four classes corresponding with the four lowest results standards and constituting a complete lower and upper primary vernacular school, with as many parallel divisions of each class as may be necessary. At Palghaut the practising school is located in a cheap shed, consisting of one central hall to accommodate four classes, one in each angle, and eight small wings, two from each side, each wing to accommodate one class on a pyal. This arrangement provides for twelve classes under the headmaster's eye. No furniture is allowed in this building except a blackboard, costing Rupees 2-8-0 in each class, a bamboo easel costing eight annas, and a stool for the teacher. The children sit or stand on the pyal, which acts in some sort as a gallery. The character of the building may vary in different localities, but benches and expensive apparatus should be avoided as far possible, as the pupils of village schools are not usually provided with such appliances. In some large towns a difficulty has been found in getting together a sufficient number of boys to constitute a practising school, and permission has been asked to have a little English taught in the third and fourth results standard classes. This has been allowed as a temporary arrangement in two or three schools. English is no doubt taught in some village schools, and this teaching is recognized by the Grant-in-aid Code, but masters who are capable of teaching English must be persons who have already received some general education in English schools and who have gone through a course beyond that prescribed for the Special Upper Primary Examination. The elementary normal schools are intended to train men of an entirely different class, viz., the teachers in indigenous schools, or young men who look forward to gain their livelihood as teachers of vernacular schools. The introduction of English into the curriculum of the practising school can be of no benefit to men entirely ignorant of English, and if the effect is to compel the second master to devote a part of his time to teaching this subject, the result must be that he will have less time for his legitimate work. The working of this exceptional arrangement should, therefore, be very closely watched, and it should be discontinued as soon as it can be."

APPENDIX No. XCVII.

CONSPECTUS OF REWARDS GRANTED TO PUBLIC OFFICERS FOR PASSING EXAMINATIONS IN THE VERNACULAR LANGUAGES OR IN SANSCRIT AND PERSIAN IN THIS PRESIDENCY.

Covenanted Civilians.—After a Covenanted Civilian has passed the Second or Higher Standard (Assistant Collectors') Examination and within seven or ten years respectively of his arrival in India, he may pass in the Native languages and obtain rewards for High Proficiency and Honours. The first language taken up must be the language of a district in which a Civilian is or has been employed, and he must obtain a certificate of High Proficiency in it before he will be eligible to take up other languages.

2. The High Proficiency test must be passed before that for Honours is taken up.

3. A Civilian may present himself in the obligatory and another language simultaneously, but he cannot pass in the latter without passing in the former. A candidate can appear no more than three times for an examination. Examinations are now held half-yearly on the third Monday of January and July, and a Civilian must apply for leave three months beforehand.

4. A scholar of reputation sits as special member for all High Proficiency and Honours Examinations, and is paid a fee of Rupees 50 when he is not in the public service.

5. The rewards are—

I.—High Proficiency.

Languages.	Donations on passing.
Vernacular.	
Tamul, Teloogoo, Canarese, Malayalam, Ooriyah, and Hindostany.	Rupees 1,000 in each case with certificate from the Presiding Examiner.
Classical.	
Sanscrit and Persian ..	Rupees 2,000 do. do.

II.—Honours.

Vernacular.	
Tamul, Teloogoo, Canarese, Malayalam, and Hindostany.	Rupees 2,000 in each case with Diploma signed by the Head of the Government of Madras.
Classical.	
Sanscrit and Persian ..	Rupees 4,000 do. do.

6. A Covenanted Civilian employed in Ganjam or Vizagapatam on passing a special test in Ooriyah will be entitled to a reward of Rupees 1,000.

7. A Covenanted Civilian serving in Ganjam or Vizagapatam and passing in the Khond language colloquially will be entitled to a reward of Rupees 500.

8. *European and Eurasian Uncovenanted Officers.*—Uncovenanted officers, Europeans and Eurasians, are examined under Notification in the 'Fort St. George Gazette,' dated the 11th November 1879.

9. They are divided into three classes, the first class consists of officers holding appointments usually held by officers of the Covenanted Civil Service, and the rules for their examination in the vernaculars are the same as those for Covenanted officers. The second class consists of Subordinate Judges, Deputy Collectors, and District Moonsifs.

10. An officer in the second class after passing the compulsory examination can appear with the sanction of Government for the High Proficiency test in the vernacular language of the district in which he is, or has been employed within eight years from the date of his joining the department, and on passing the same, he will be entitled to a reward of Rupees 1,000. An officer cannot appear more than three times for this examination.

11. The third class consists of the following officers :—

(1.) Superintendents, Assistant Superintendents, and Inspectors of Police.
(2.) Superintendent of Central and other Jails.
(3.) Superintendents, Deputy and Assistant Superintendents, Sub-Assistants and Surveyors of the Revenue Survey.
(4.) Directors, Deputy and Assistant Directors of Revenue Settlement.
(5.) Officers of the Engineer and Upper Subordinate Establishments of the Public Works Department.
(6.) Conservators, Deputy Assistant and Sub-Assistant Conservators and Rangers of Forests.
(7.) Deputy Commissioners of Salt Revenue.
(8.) Superintendents and Assistant Superintendents of Government Farms.
(9.) All other officers holding corresponding positions in other departments and to whom a knowledge of a vernacular language is essential for the performance of their duties, excepting officers in the Postal, Telegraph, Trigonometrical, Topographical, Geological, Marine Survey, and Account and Paper Currency Departments.

12. There is no reward for passing the compulsory test, but an officer who draws a salary of Rupees 200 or less may on passing receive a Moonshee allowance of Rupees 200 to defray the cost of teachers. An officer of the third class who may within five years from the date of joining a department pass the compulsory examination for the second class in the vernacular of the district in which he is, or has been employed, provided such officer has not received a reward under the Military Examination Rules for passing in the same language by the Higher Standard test, will be entitled to a reward of Rupees 500. The compulsory test for the second class is the reward test for the third class.

13. The sanction of Government must be obtained for the appearance of an officer for this examination, and he cannot appear on more than three occasions.

14. *Officers under the Government of India.*—Officers in the Postal, Telegraph, Great Trigonometrical Survey, Topographical Survey, Marine Survey, Geological Survey, Account and Paper Currency Departments, which are directly subordinate to the Government of India, are on passing in Tamul, Teloogoo, Canarese, Malayalam or Hindostany by the Military Higher Standard Examination, slightly modified in the case of Hindostany, entitled to a Moonshee allowance of Rupees 180.

15. *Examination in Khond.*—A European official is entitled to a reward of Rupees 500, and a Native official to one of Rupees 250, for passing a colloquial examination in Khond. Such officials must be serving in the Ganjam or Vizagapatam districts.

16. *Military Officers in civil employ.*—All Military officers in civil employ in Ganjam or Vizagapatam are allowed to pass the special test in Ooriyah and obtain a reward of Rupees 1,000.

17. *Public Works Officials.*—Members of the Engineer establishment of the Public Works Department serving in Ganjam or Vizagapatam are entitled to a Moonshee allowance of Rupees 180 if they pass a colloquial examination in Ooriyah.

18. *Police Officers.*—All Police officers serving in Ganjam or Vizagapatam, Inspectors included, may pass the test in Ooriyah according to the test for the third class as above and obtain a Moonshee allowance of Rupees 180.

19. *Medical Officers.*—Medical officers holding civil charges have to pass within one year in the language of the district in which they are employed (the languages specified being Ooriyah, Teloogoo, Canarese, and Tamul), and they will thereupon be entitled to a reward of Rupees 200.

20. They may also pass in the same languages by the Military Higher Standard and obtain a reward of Rupees 500.

21. *Military Officers and Soldiers.*—Under the Army Regulations an allowance of Rupees 180 is given for passing in Hindostany by the Lower Standard, and an additional allowance of Rupees 180 for passing by the Higher Standard. If the Higher Standard is passed at once the allowance is Rupees 360. Warrant Officers, &c., who have had the advantage of instruction from Regimental Moonshees get a donation of Rupees 90 for passing by the Lower Standard, and Rupees 90 more for passing by the Higher, and Rupees 180 for passing at once by the Higher Standard. Otherwise they receive Rupees 360.

22. A reward of Rupees 500 is given for passing by the Higher Standard in Persian, Tamul, Teloogoo, Canarese, and Malayalam.

23. A reward of Rupees 1,500 is given for passing according to the High Proficiency test in Tamul, Teloogoo or Canarese.

24. Under the new Army Circular, dated the 31st August 1880, Clause 118, the following rewards are given for passing the Higher Standard Examination :—Rupees 800 each, Arabic, Sanskrit, Beloochi and Pooshtoo ; Rupees 500 each, Assamese, Bengali, Burmese, Goojerati, Maráthi, Ooriya, Panjaibi, Sindhi, or any other Oriental language, the study of which is thought desirable by Government.

N.B.—For Persian, *vide* paragraph 22 above.

25. The following rewards are given for passing the High Proficiency Examination :—Oordoo, Rupees 1,000 ; Hindi, Rupees 1,000; Bengali, Rupees 1,000; Ooriya, Rupees 1,000; Persian, Rupees 2,000 ; Arabic, Rupees 2,000 ; Sanskrit, Rupees 2,000 with certificate from the presiding Examiners and in the case of Warrant Officers and Soldiers of all ranks, a gold medal, if the test is passed with extraordinary credit

26. The following rewards are given for passing the Honor Examination:—Oordoo, Rupees 2,000; Hindi, Rupees 2,000 ; Bengali, Rupees 2,000 ; Persian, Rupees 4,000 ; Arabic, Rupees 5,000; Sanskrit, Rupees 5,000; with Diploma from the Government of India (Madras Government), and a gold medal.

APPENDIX No. XCVIII.

STATISTICS OF THE FOOD-PRICES IN DIFFERENT PARTS OF THE PRESIDENCY FOR TWENTY-THREE YEARS.

NOTE.—*The figures shown are the quantities sold per rupee in seers and decimals of a seer, the seer being equal to* 80 *tolahs or* 2·057 *lb.*

(a) *Rice.*

Years.	Bellary district.	Coimbatore district.	Ganjam district.	Madras town.	Salem district.	Tanjore district.	Tinnevelly district.	Vizagapatam district.
1861	13·30	11·10	20·30	...	12·70	15·90	10·90	18·10
1862	12·90	10·80	17·20	...	12·50	13·90	12·30	15·00
1863	12·10	11·30	19·30	...	13·80	15·40	11·30	15·60
1864	8·60	11·00	21·50	...	13·30	14·50	11·60	17·60
1865	7·80	9·30	16·00	...	11·40	12·20	8·40	13·20
1866	8·30	8·60	9·30	...	10·30	11·30	8·50	10·00
1867	6·00	7·00	10·50	10·54	8·00	9·50	8·20	12·60
1868	9·00	9·50	20·20	11·01	10·50	12·80	10·30	23·50
1869	11·40	9·60	17·10	10·64	11·10	12·90	10·60	14·30
1870	12·00	10·60	16·10	13·74	12·50	14·10	10·90	13·20
1871	15·43	15·87	18·20	18·20	19·69	19·92	14·09	14·88
1872	14·90	15·21	19·78	16·02	18·48	17·50	13·19	13·82
1873	13·05	13·76	30·02	15·22	16·85	20·75	13·80	18·22
1874	13·73	11·26	24·38	11·81	14·18	13·10	10·12	14·97
1875	14·52	12·92	24·25	14·23	16·17	13·63	12·84	14·44
1876	11·21	10·85	22·72	10·71	12·52	11·27	11·03	13·67
1877	7·13	7·71	12·73	8·07	6·95	8·96	7·84	8·58
1878	7·32	8·48	8·60	8·01	8·35	10·30	8·56	6·73
1879	11·01	10·55	12·67	10·37	10·30	13·60	10·38	5·04
1880	13·93	12·98	16·98	12·06	12·53	16·58	13·96	15·01
1881	13·50	15·15	19·40	14·55	15·66	18·10	13·30	14·40
1882	13·40	15·20	18·50	15·02	15·60	20·50	16·80	11·60
1883	13·30	15·70	20·20	15·22	16·00	20·00	18·00	11·80

(b) *Wheat.*

Years.	Bellary district.	Coimbatore district.	Ganjam district.	Madras town.	Salem district.	Tanjore district.	Tinnevelly district.	Vizagapatam district.
1861	12·20	8·30	14·10	...	8·60	7·50	6·60	13·00
1862	12·10	7·70	17·00	...	8·80	6·90	6·60	16·20
1863	11·10	8·20	16·90	...	9·20	8·30	6·40	15·90
1864	5·30	6·60	15·00	...	7·20	6·40	5·20	15·60
1865	4·80	5·70	11·10	...	6·10	5·00	5·10	13·00
1866	3·90	5·60	6·70	...	6·20	5·50	4·90	9·00
1867	4·20	4·90	6·10	...	5·40	4·50	5·00	8·20
1868	8·50	5·10	15·50	...	6·50	5·70	5·60	15·10
1869	12·90	7·80	9·00	...	8·40	7·10	6·20	10·50
1870	7·40	6·90	6·30	...	7·30	6·70	6·20	7·90
1871	...	...	...	...	...	...	...	...
1872	9·04	11·85	...	...	11·17	9·57	8·03	11·67
1873	10·55	9·64	11·96	9·59	9·24	8·42	7·60	14·89
1874	13·75	10·91	10·57	10·67	11·35	9·59	7·85	12·62
1875	14·80	11·79	14·85	10·77	12·83	10·64	8·57	15·42
1876	11·73	9·90	16·92	10·29	9·73	8·97	7·45	16·79
1877	7·79	6·30	10·17	7·44	5·00	5·05	5·88	12·17
1878	8·48	5·57	8·90	7·21	4·58	4·75	5·30	9·83
1879	7·55	6·59	7·80	7·13	5·22	5·75	5·36	8·81
1880	9·88	9·03	10·19	7·92	7·37	6·70	7·11	11·10
1881	16·37	13·07	12·79	9·31	11·77	9·75	9·14	14·61
1882	17·70	12·00	10·00	10·68	11·60	10·00	9·00	11·06
1883	17·60	13·40	8·80	11·23	12·70	10·90	9·80	11·40

(c) *Great Millet or Cholam.*

Years.	Bellary district.	Coimbatore district.	Ganjam district.	Madras town.	Salem district.	Tanjore district.	Tinnevelly district.	Vizagapatam district.
1861	24·70	21·70	32·80	...	20·70	25·80	20·90	34·80
1862	25·30	19·10	33·60	...	20·70	25·60	20·60	28·90
1863	20·50	17·60	25·80	...	22·80	26·60	16·60	26·00
1864	12·00	19·90	32·60	...	26·60	25·80	16·90	29·10
1865	12·40	16·30	23·00	...	20·80	18·60	12·60	22·10
1866	10·80	13·10	11·90	...	16·10	17·00	12·20	17·40
1867	9·20	9·40	14·40	...	11·50	12·80	20·00	19·30
1868	19·50	15·00	33·40	...	16·30	18·10	17·20	39·90
1869	28·50	13·80	24·40	...	18·60	20·00	18·20	23·60
1870	27·50	15·90	22·80	...	22·30	24·40	20·30	23·30
1871	34·70	31·92	33·61	...	44·23	34·34	29·38	28·62
1872	32·27	30·47	24·87	...	46·01	30·96	27·57	24·17
1873	24·31	21·33	34·85	23·87	22·87	28·29	...	34·31
1874	29·32	18·88	22·60	18·19	22·35	24·34	...	24·95
1875	23·13	20·75	28 90	23·02	25·06	28·49	...	23·90
1876	17·40	17·98	27·10	16·54	18·16	23·90	...	23·33
1877	7·99	10·32	...	10·22	8·22	11·30	...	14·99
1878	11·46	13·82	...	10·16	11·18	14·18	...	12·28
1879	16·49	17·67	...	12·19	15·82	17·53	...	16·39
1880	28·27	20·57	18·50	18·81	20·50	26·07	...	26·23
1881	38·50	30·51	...	22·21	26·87	30·21	...	27·12
1882	35·40	26·70	...	23·60	28·00	36·80	...	22·80
1883	41·40	27·50	...	22·70	31·50	36·50	...	23·80

(d) *Bulrush Millet or Cumboo.*

Years.	Bellary district.	Coimbatore district.	Ganjam district.	Madras town.	Salem district.	Tanjore district.	Tinnevelly district.	Vizagapatam district.
1861	22·40	26·00	37·00	...	19·80	26·00	19·30	33·40
1862	23·40	21·70	32·50	...	21·20	25·00	19·20	27·90
1863	19·30	21·90	30·20	...	24·50	26·00	17·30	28·80
1864	11·80	23·40	38·90	...	27·30	26·20	17·00	32·50
1865	11·70	18·00	26·90	...	21·70	21·70	12·10	24·20
1866	10·11	14·00	16·40	...	16·50	17·50	11·30	17·00
1867	8·70	12·10	18·90	...	12·50	12·80	12·10	22·80
1868	17·50	17·40	39·70	...	17·40	23·10	17·30	49·00
1869	26·00	16·10	23·90	...	20·40	24·20	17·90	23·40
1870	25·30	20·20	25·60	...	24·50	27·50	17·30	23·10
1871	...	...	...	...	...	...	...	...
1872	20·04	27·53	...	...	34·16	33·45	16·34	23·90
1873	24·98	26·02	...	22·06	24·40	29·24	19·19	32·98
1874	27·38	21·85	...	18·72	23·31	22·97	13·48	28·53
1875	22·57	23·40	...	25·00	25·30	27·48	19·68	26·02
1876	16·98	19·03	...	16·30	20·21	22·80	17·56	24·42
1877	8·73	11·51	...	10·00	7·51	10·84	...	15·14
1878	11·25	18·94	...	12·10	11·55	14·17	...	15·40
1879	14·92	20·58	...	18·30	16·38	18·05	...	19·85
1880	21·27	23·93	...	21·84	20·06	24·95	...	30·40
1881	30·88	35·19	...	24·36	25·72	31·92	...	28·47
1882	27·00	34·30	...	26·20	24·70	35·20	...	24·10
1883	30·50	30·80	...	25·70	28·00	37·00	...	24·70

CONSPECTUS OF COMPARATIVE STATISTICS ON THE MOST GENERAL HEADS COMPARING THIS PRESIDENCY WITH OTHER ADMINISTRATIONS, PROVINCES, &c., FOR THE OFFICIAL YEAR 1882-83.

Administration, Province, &c.	Area in square miles, with Native States.	Population, with Native States.	Density of population per square mile, with Native States.	Number of Hindoos, with Native States.	Number of Mahomedans, with Native States.	Number of British-born subjects, with Native States.	Number of males under instruction, with Native States.	Number of females under instruction, with Native States.	Gross Revenue.*	Gross expenditure.	Amount of Land Revenue collected.	Amount of the charges for collection of Land Revenue.	Amount of Salt Revenue.	Amount of the charges for collection of Salt Revenue.	Amount of Stamp Revenue.	Amount of the charges for collection of Stamp Revenue.	Amount of Excise Revenue.
									£	£	£	£	£	£	£	£	£
Madras	139,900	30,868,504	220·6	28,497,666	1,933,571	5,892	519,823	39,104	9,462,756	7,233,315	4,506,459†	740,245	1,390,853	152,259	520,837	14,281	645,842
Bengal	150,588	66,691,456	442·8	45,452,806	21,704,724	10,583	1,009,999	35,760	17,740,501	7,787,875	3,833,673	328,161	1,836,514	3,369	1,221,353	42,766	978,897
Bombay	124,134	16,489,274	132·8	17,834,985	3,774,360	12,608	353,490	21,193	10,644,657	9,929,731	3,694,768†	652,029	1,364,495	120,755	420,960	17,959	700,955
Assam	46,341	4,881,426	105·3	3,062,148	1,317,022	785	33,376	1,068	836,771	584,921	385,504	91,679	...	...	71,694	2,728	200,999
North-Western Provinces and Oudh ...	106,111	44,107,869	415·6	38,555,121	6,162,900	20,184	302,337	10,212	8,873,058	3,962,536	5,656,563†	667,208	...	...	582,608	11,829	475,223
Punjaub	106,632	18,850,437	176·7	9,252,295	11,662,434	18,767	174,749	6,537	4,465,118	3,307,909	2,042,772†	235,076	...	....	325,183	12,276	131,495
Central Provinces ...	84,445	9,838,791	116·5	8,703,110	285,687	2,774	76,849	3,171	1,479,180	997,922	609,759	75,227	...	...	122,476	3,277	218,195
British Burmah ...	87,220	3,736,771	42·8	88,177	168,881	6,330	215,237	31,056	2,702,086	1,493,702	1,057,886	215,499	16,421	263	82,619	2,021	225,492
Total British India ...	1,377,540	253,941,309	184·3	187,937,438	50,121,595	89,798	2,879,571	155,268	70,125,231	69,418,598	21,876,047	3,042,491	6,177,781	449,030	3,379,681	123,398	3,609,561
United Kingdom ...	121,305	34,884,848	287	...	...	...	...	...	89,004,456	88,906,278	...	...	...	...	11,691,025	...	26,982,916

Administration, Province, &c.	Amount of the charges for collection of Excise Revenue.	Amount of Customs Revenue.	Amount of charges for collection of Customs Revenue.	Amount of Forest Revenue.	Amount of the charges for collection of Forest Revenue.	Expenditure on Ordinary Public Works (not classed as Productive) from Imperial, Provincial, and Incorporated Local Funds.	Expenditure on Productive Public Works (Revenue Account).	Value of gold imported on private account and on account of Government.	Value of silver imported on private account and on account of Government.	Value of gold exported on private account and account of Government.	Value of silver exported on private account and on account of Government.	Number of Government Aided, and Unaided, Colleges and Schools.	Total number of students.	Expenditure on education.	Number of persons killed by wild beasts and venomous snakes.	Number of cattle killed by wild beasts and venomous snakes.	Number of suits before civil courts of original jurisdiction.	Number of persons brought to trial in the various criminal courts.	Total police of all kinds except village watchmen.	Number of documents registered.
	£	£	£	£	£	£	£	£	£	£	£			RS.	‡	‡	‡	‡	‡	
Madras	19,732	104,580	18,541	90,644	64,486	924,758	88,966	249,799	95,790	50,194	92,670	17,494	446,324	37,49,517	1,195	9,703	261,378	329,603	22,941	435,381
Bengal	26,791	368,678	55,755	69,396	38,213	1,751,746	662,670	991,223	1,307,065	173	287,500	70,905	1,311,092	75,51,159	10,458	8,560	524,065	222,109	25,056	555,141
Bombay	19,580	178,315	61,109	209,035	126,248	948,428	43,677	3,842,593	6,916,843	113,897	490,714	6,138	389,986	38,11,222	1,265	3,098	173,860	113,881	20,226	84,903
Assam	858	...	...	24,861	17,175	182,360	...	...	...	...	...	1,502	50,281	3,49,226	381	4,002	28,277	15,752	4,067	14,316
North-Western Provinces and Oudh ...	13,356	...	...	101,340	83,772	751,449	502,157	...	...	...	...	6,502	233,073	21,52,901	6,073	8,604	274,020	241,961	33,038	183,457
Punjaub	5,882	...	...	76,671	56,054	862,760	606,557	...	...	...	...	2,133	116,070	16,26,005	965	2,919	290,023	181,998	20,473	63,565
Central Provinces ..	5,735	...	...	97,765	41,144	164,034	126,379	...	...	...	...	1,565	89,506	6,82,485	1,343	3,889	106,472	42,127	8,693	22,304
British Burmah ...	1,509	644,546	19,577	250,389	121,870	511,621	167,865	11,520	38,324	..	6,911	3,909	107,106	5,94,892	182	1,329	33,426	42,275	7,275	8,025
Total British India ...	94,431	1,296,119	154,982	938,228	567,318	7,165,747	11,741,747	5,095,135	8,358,022	164,264	877,795	111,237	2,790,061	2,10,56,531	22,125	46,710	1,734,573	1,223,104	145,421	1,389,885
United Kingdom ...	...	19,682,671	998,727	...	...	...	...	7,755,800	9,468,002	7,091,365	9,322,846	...	...	...	...	...	...	...	...	...

* From this point the columns relate to British India without the Native States. † Excluding Land Revenue due to Irrigation. ‡ The figures in these columns are for the calendar year 1882.

APPENDIX No. C.

NOTIFICATIONS AND RULES ISSUED AND PUBLISHED UNDER THE PROVISIONS OF REGULATIONS AND ACTS WHICH HAVE THE FORCE OF LAW IN THIS PRESIDENCY ARRANGED IN THE ORDER OF THE REGULATIONS AND ACTS.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
				I.—PARLIAMENTARY STATUTES RELATING TO INDIA.	
1861	24 & 25 Victoria, Cap. 67.	Indian Councils.	37	Rules for the conduct of business at meetings of the Madras Council for making Laws and Regulations.	27th February 1863.
				Amendment of rules	23rd November 1882.
1861	24 & 25 Victoria, Cap. 104.	High Court ...	Cl. 15	Rules relating to the disposal of lapsed deposits held in the civil courts.	High Court circulars, 21st August 1883, and 5th October 1883, No. 3173.
				Chief ministerial officer of court to conduct duties during the temporary vacancy of Judge.	Fort St. George Gazette, 20th April 1870, page 471.
				Rules regulating to the payment of suitors' moneys into or out of court.	Fort St. George Gazette, 27th June 1882, page 752, Part II.
1861	Letters Patent.	High Court ...	9	Rule permitting Attorneys of the Court to plead on the Appellate Side of the Court.	Fort St. George Gazette, 18th August 1874, page 1239.
				II.—GENERAL ACTS OF THE GOVERNOR-GENERAL IN COUNCIL.	
1841	X	Registry of Ships.	2	Ports of registry	Fort St. George Gazette, 13th February 1866, page 235; 25th February 1879, Part I, page 163.
			3	Appointment of Registrars ...	Extract Minutes of Consultation, No. 267, 1st December 1855.
				Appointing Port Officer, Calicut, Registrar of Shipping for that port.	Fort St. George Gazette, 1st May 1883, page 268.
				Appointing Port Officer, Masulipatam, an additional Registrar of Shipping.	Fort St. George Gazette, 5th June 1883, page 346.
				Appointing Port Officer of Cochin to be a Registrar of Shipping at that port.	Fort St. George Gazette, 1st April 1884, No. 216.
			7	Officers appointed by Government to measure, &c., ships prior to grant of certificate of registry.	G.O., No. 70, 20th February 1875 (Marine).
1850	XI	Registry of Ships.	3	Rules for measuring native craft.	Fort St. George Gazette, 8th January 1878, Part I, page 13.
1852	XXX	Naturalization of Aliens.	7	Fixing the fee at Rs. 50 ...	Fort St. George Gazette, 2nd October 1883, page 633.
1857	XXVII	Madras University.	8	Bye-laws	Madras University Calendar for 1884-85.
1858	XXXVI	Lunatic Asylums.	2	Rules for the management and superintendence of Lunatic Asylums.	Vide office publication "Law relating to Lunatics."
				Vide "Law relating to Lunatics."	G.O., 17th July 1883, No. 1864 (Judicial).
1859	I	Merchant Seamen.	8	Appointment of shipping masters.	Fort St. George Gazette, 13th May 1859, page 963; 3rd April 1877, Part I, page 224; 23rd February 1881, Part I, page 100.
			10	Rules and course of examination for masters and mates of vessels.	G.O., 13th August 1859, No. 387 (Marine).
			67	Scale of medicines	Fort St. George Gazette, 26th August 1859, page 373.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1859	XIII	Breach of Contract.	5	Extension of Act to all the districts of the Madras Presidency.	Fort St. George Gazette, 23rd August 1859, page 321.
1863	XVI	Excise on Spirits used exclusively in Arts and Manufactures, &c.	2	Rules	Revenue Board's Standing Order, No. 88, Macleane's Edition.
1864	XVII	Official Trustee.	20	High Court Rules for guidance of Official Trustee.	Fort St. George Gazette, 30th March 1881, Part II, page 355.
1867	XXV	Printing Presses and Newspapers.	20	General rules	Fort St. George Gazette, 15th October 1867, page 1114.
1868	XIV	Contagious Diseases.	5, 6, 9, 11, 21 and 26	Rules	Fort St. George Gazette, 31st October 1876, Part I, page 51.
			12	Hospitals provided	Fort St. George Gazette, 6th July 1869, page 8.
1869	XV	Prisoners' Testimony.	10 and 18	Rules	Fort St. George Gazette, 29th October 1878, page 625.
				Rule IX modified	Fort St. George Gazette, 13th May 1884, page 294.
			20	Declaration who shall be deemed "officer in charge of the jail."	Fort St. George Gazette, 29th June 1869, page 1013.
1870	I	Quarantine ...	1	Rules	Fort St. George Gazette, 1st October 1872, page 1617; 29th July 1879, page 515.
				Port Surgeons	Fort St. George Gazette, 7th September 1875, page 1509.
1870	VII	Court Fees ...	20	Rules for all courts as to cost, service and execution of processes.	Fort St. George Gazette, dated 5th August 1873, page 1255; 12th February 1884, page 88; 24th June 1884, page 382.
				Addendum to the Rules ...	Fort St. George Gazette, 25th April 1882, page 224, Part I.
			22	Rules regarding number of peons for service of civil and criminal processes.	Fort St. George Gazette, 5th August 1873, page 1255.
			23	Rules framed by the Board of Revenue regarding process-servers for offices of Collectors and their subordinates.	Fort St. George Gazette, 5th August 1873, page 1257.
			27	Rules for the supply, use and renewal of court-fee stamps.	Fort St. George Gazette, 30th April 1872, page 847; 20th May 1873, page 902; 9th December 1873, page 1955; 23rd April 1875, page 797.
			27	Rules as to denoting court-fee stamps.	Fort St. George Gazette, 22nd May 1883, page 322; 28th August 1883, page 558.
			27	Rules for the use of stamps, &c., in the Madras Court of Small Causes.	Fort St. George Gazette, 28th February 1872, page 404.
			35	Fees on plaints, &c., filed under Madras Regulation VI of 1831, remitted with certain provisos.	Fort St. George Gazette, 13th February 1872, page 306.
				Fees on copies of judgments or decisions passed under Regulation VI of 1831, remitted.	Fort St. George Gazette, 15th October 1872, page 1675.
				Fees on petitions of appeal under Section 55 of Madras Act IV of 1871, remitted.	Fort St. George Gazette, 28th January 1873, page 189.
				Fees payable in suits by Government ryots for the recovery of lands sold for arrears of revenue, reduced.	Fort St. George Gazette, 11th August 1874, page 1214.
				Fees chargeable on plaints before Collectors under Madras Act VIII of 1865.	India notification, 6th March 1874, No. 1511.
				Fees on petitions to Collectors under Section 13 of Madras License Act III of 1878, reduced.	Fort St. George Gazette, 7th May 1878, page 267.
				Fees on copies of orders furnished by Collectors under Section 14 of Madras License Act III of 1878, remitted.	Fort St. George Gazette, 5th August 1879, page 536.
1870	X	Land Acquisition.	3, cl. 4	Appointing First Judge, Madras Small Cause Court, a Judge under the Act.	Fort St. George Gazette, 12th November 1872, page 1800.
				Rules for the acquisition of lands.	Board's Standing Orders 12 and 12-1.
1870	XXIII	Indian Coinage.	13	Defaced coin not legal tender ...	Fort St. George Gazette, 31st October 1871, page 1700.
1871	III	Paper Currency.	5	Establishing circles of issue in the Madras Presidency.	Gazette of India, 6th August 1881, page 322.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1871	V	Prisoners ...	19	Application of provisions of this section to offences against Indian Penal Code.	Government of India, Foreign department notification, 12th August 1872. Fort St. George Gazette, 27th August 1872, page 1456.
1871	VII	Emigration ...	56	Rules	Fort St. George Gazette Supplement, 6th October 1874.
				Amendment of rules	Fort St. George Gazette, 19th January 1875, page 94; 27th July 1875, page 1302; 25th January 1876, page 135; 25th July 1876, page 1040; 12th December 1876, page 172, part I; 23rd January 1877, page 78, part I; 16th October 1877, page 669; 18th May 1880, page 210.
1871	XXIII	Pensions ...	14	Revised rules	Revenue department G.O., 4th October 1880, No. 1290, and Financial department G.O., 21st February 1881, No. 298.
1871	XXVI	Land Improvement.	18	Do.	Revenue department G.O., No. 1732, 26th October 1878.
1872	XV	Indian Christian Marriage.	83	Rules	Fort St. George Gazette, 17th March 1874, page 511.
				Amendment of above	Fort St. George Gazette, 4th May 1881, page 231.
1873	X	Oaths	7	Rules prescribing certain forms of oaths.	High Court circulars, 16th August 1873, No. 1512; 23rd January 1877, No. 162; 15th August 1879, No. 1264.
1874	II	Administrator-General.	3	Dominions of Princes and States in India in alliance with Her Majesty to be included for the purposes of the Act in the Presidencies of Bengal, Madras and Bombay.	Fort St. George Gazette, 27th August 1878, page 494.
			57	Rules for his guidance	Fort St. George Gazette, 16th May 1856, page 757; 29th October 1878, page 626.
				Modification of above	Fort St. George Gazette, 14th December 1881, page 727.
1874	IX	European Vagrancy.	2	Extension of certain provisions of this Act to Native States in alliance with Her Majesty.	Home Department Notification, No. 4829, 20th October 1870. Fort St. George Gazette, 8th November 1870, page 1476.
			10	Investing Superintendents of Police with jurisdiction and powers conferred on a Justice of the Peace.	Fort St. George Gazette, 14th March 1871, page 404.
			14	Governor of the Workhouse authorised to punish.	Fort St. George Gazette, 13th June 1882, page 296.
				Appointment of Committee.—Rules for the management and discipline of the Government Workhouse at Madras.	Fort St. George Gazette, 14th March 1871, page 403.
				Supplemental rules	Fort St. George Gazette, 1st August 1871, page 1255; 19th September 1871, page 1498; 1st July 1879, page 461.
			17	Commissioner of Police and Justices of the Peace to obtain Government sanction before concluding an agreement with any vagrant.	Fort St. George Gazette, 14th March 1871, page 404.
			27	Inspectors of Police and Station-house officers to institute prosecutions.	Fort St. George Gazette, 31st May 1870, page 672.
			34	Commissioner of Police, Madras, to exercise and perform the powers and duties conferred and imposed on Local Governments.	Fort St. George Gazette, 4th March 1884, page 153.
1874	XIV	Scheduled Districts.	3	Extension of Act to Bhadrachellam and Rekapully Talooks and the Rumpa country.	Fort St. George Gazette, 1st July 1879, page 462.
			5	Extending certain Acts to the Scheduled Districts in the Godavery District.	Fort St. George Gazette, 21st October 1879, pages 722, 723.
				Extension of the Abkarry laws to Bhadrachellam and Rekapully Talooks.	Fort St. George Gazette, 3rd August 1880, page 327.
			6	Godavery District rules	Fort St. George Gazette, 8th July 1879, page 475.
				Certain mootahs transferred from the Vizagapatam to the Godavery Agency.	Fort St. George Gazette, 5th July 1881, page 336.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1875	XII	Ports and Port Dues.	5	Extension to certain ports and port limits defined.	Fort St. George Gazette, 28th June 1881, Part I, page 302; 1st November 1881, Part I, page 620; 7th December 1881, page 708; and 19th September 1882, page 516.
				Limits of certain of the above-noted ports altered.	Fort St. George Gazette, 8th May 1883, page 290, and 2nd September 1884, page 535.
			6	Fixing the limits of the port of Madras.	Fort St. George Gazette, 20th February 1883, page 99.
			7	Rules as to mooring of ships, &c.	Fort St. George Gazette, 28th March 1883, page 180.
				Mooring vessels in the Madras Harbour.	Fort St. George Gazette, 11th January 1882, page 17.
				Rules for the guidance of Masters, &c., of vessels entering the Port of Madras.	Fort St. George Gazette, extraordinary, 23rd February 1877.
				Amendment of Rule 1 in the above rules.	Fort St. George Gazette, 19th August 1879, Part I, page 564.
				Regulating entry and departure of vessels using Madras Harbour and penalties for infringement.	Fort St. George Gazette, 9th August 1881, page 423.
				Port Rules and Cargo Boat Registration fee prescribed.	Fort St. George Gazette, 28th June 1881, pages 310, 313 and 316, Part I.
				Rules for the exhibition of lights for ships at anchor.	Fort St. George Gazette, 13th November 1877, Part I, page 760.
			8	Appointment of Conservators of Ports.	Fort St. George Gazette, 28th June 1881, Part I, page 311; 23rd October 1883, page 675; 10th June 1884, page 357.
			8, 45, 46	Assistant Superintendent of Sea Customs at Ganjam to be Conservator of Port. Rate at which Port Dues are to be levied.	Fort St. George Gazette, 10th June 1884, page 357.
			18-A	Port and Marine Surgeon, Madras, to be Health Officer at that Port.	Fort St. George Gazette, 8th January 1884, page 5.
			38	Extension to the Port of Madras Scale of Pilotage Fees for Madras Harbour.	Fort St. George Gazette, 18th January 1882, Part I, page 26.
			42	Signal for assistance of Police ...	Fort St. George Gazette, 27th November 1883, No. 774.
			45	Levy of Port Dues on vessels entering the Harbour of Madras.	Fort St. George Gazette, 16th March 1881, Part I, page 143; 28th December 1881, page—.
			45 and 46	Maximum port dues, with conditions of levy fixed and exemptions declared.	Fort St. George Gazette, 28th June 1881, Part I, pages 307, 313 and 314; 26th July 1881, Part I, page 395.
			61	Rules for the Harbour of Madras.	Fort St. George Gazette, 8th May 1883, page 290.
1876	I	Telegraphs ...	7	Revised Tariff on Inland Messages.	Fort St. George Gazette, 21st December 1881, Part I, page 745.
				Extension of Act to the civil and military station of Bangalore.*	Fort St. George Gazette, 11th May 1884, page 180.
1876	VIII	Native Passenger Ships.	6 and 47	Ports of embarkation and debarkation and appointment of officers.	Fort St. George Gazette, 30th July 1878, Part I, page 427; 17th March 1878, Part I, page 731; 9th March 1880, part I, page 108.
			13	Appointment of officers to grant certificates of sea-worthiness.	Fort St. George Gazette, 30th July 1878, Part I, page 427.
			21 and 23	Appointment of officers to perform duties mentioned in Sections 21 and 23.	Gazette of India, 24th August 1878, page 538.
			46	Addition to scale of provisions ...	Fort St. George Gazette, 7th June 1881, Part I, page 274.
			48	Voyages between ports on the Coromandel Coast and those on the East Coast of the Bay of Bengal as specified, deemed short voyages.	Fort St. George Gazette, 1st February 1882, page 58.
			48	Periods of the year on the coasts of Madras deemed to be fair and foul weather.	Fort St. George Gazette, 27th June 1882, page 349.
1876	XI	Presidency Banks.	63	Bye-laws of the Bank of Madras.	Vide pamphlet containing bye-laws.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1877	III	Registration ...	1	Inoperative in the whole of the Scheduled Districts of the Madras Presidency.	Fort St. George Gazette, 4th October 1881, page 516, Part I.
				And in the Laccadive Islands ...	G.O., 20th July 1881, No. 1430.
			69	Revised rules	Fort St. George Gazette Supplement, 13th March 1883.
				Copying of documents	Fort St. George Gazette, 11th May 1880, page, 203.
			78	Table of fees, &c.	Fort St. George Gazette, 1st April 1884, page 213.
1878	I	Opium	5 and 13	Rules	Fort St. George Gazette Supplement, 22nd June 1880.
				Amended Rules 21 and 22 ...	Fort St. George Gazette, 13th April 1881, page 198.
				Amendment of Rule 21 ...	Revenue G.Os., 5th December 1881 and 16th January 1882, Nos. 1863 and 54.
			1	Declaring that the Act came into force in Madras from the 1st July 1880.	Fort St. George Gazette Supplement, 22nd June 1880.
				Extended to Mysore	Fort St. George Gazette, 2nd Decemher 1879, page 817.
				Amendment of license forms 4 and 6.	G.O., 16th April 1883, No. 448.
			6	Duty on each chest of Malwah opium imported into the Madras Presidency.	Fort St. George Gazette Supplement, 22nd June 1880.
				Second-class Magistrates empowered to try cases under Act.	Fort St. George Gazette, 12th October 1880, page 472.
1878	VI	Treasure Trove.	19	Rules	Fort St. George Gazette, 10th September 1878, Part I, page 522.
1878	VIII	Sea Customs ...	...	......	Macleane's Edition, Board's Standing Orders, 54—80, pages 85—110.
			6	Salt Commissioner appointed Customs Collector for the purposes of Section 138.	Fort St. George Gazette, 19th September 1882, page 517.
			6 and 7	Further appointment of officers.	Fort St. George Gazette, 11th December 1883, page 821.
			6	Bye-law requiring masters, &c., receiving goods on board to sign the police export boat pass in lieu of the export boat note.	Revenue G.O., 20th June 1881, No. 951.
				Rules made by the Chief Customs authority.	Fort St. George Gazette, 11th December 1883, page 831.
			11	Consolidated list of places declared to be ports, &c.	Fort St. George Gazette, 11th December 1883, page 821.
				A portion of the port of Mangalore declared to be a wharf for the landing of firewood.	Fort St. George Gazette, 30th November 1881, page 699.
				Consolidated list showing the limits of the several ports.	Fort St. George Gazette, 11th December 1883, page 823.
			11 cl. (*b*).	Limits of Customs Ports ...	Fort St. George Gazette, 2nd October 1883, No. 639.
			11 *c* and *d*.	Limits for the landing and shipping of goods in any customs port.	Fort St. George Gazette, 1st August 1882, page 411.
				Wharf for the landing and shipping of goods at the port of Mangalore.	Fort St. George Gazette, 25th March 1884, page 203.
			14	Certain ports in the Madras Presidency declared to be warehousing ports.	Fort St. George Gazette, 11th December 1883, page 830, Part I.
			76	The portion of this section relating to export boat notes suspended from operation at the port of Madras and at all outports.	Fort St. George Gazette, 21st September 1880, page 418; 1st March 1882, page 102; 11th December 1883, page 830.
				Rules regarding drawbacks ...	Revenue G.O., 2nd October 1880, No. 1273.
				Revised rules for coasting steamers.	Revenue G.O., 1st April 1882, No. 366, and Revenue Board's Proceedings, 3rd May 1882, No. 1222.
1878	XI	Arms	9, 11, 17 and 27.	Notifications and rules under ...	Vide office compilation.
				Importation from Mahé into British India prohibited.	G.Os., 25th October 1881, No. 2190; 18th December 1882, No. 2183.
1879	I	Stamps ...	55	Sale, &c.	Macleane's Standing Orders No. 49.
			55 and 57.	Revised rules	Fort St. George Gazette, 7th August 1883, pages 490, 491.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1879	I	Stamps	3	All registering officers under Act III of 1877 appointed Collectors for the purposes of section 15 of the Stamp Act.	Fort St. George Gazette, 12th August 1879, page 546.
			3, cl. 8.	All revenue officers in charge of divisions invested with the powers of a Collector under section 35—39.	Fort St. George Gazette, 15th July 1879, page 488.
				The powers of a Collector conferred on all divisional officers restricted to officers holding the rank of Sub or Head Assistant Collector.	Fort St. George Gazette, 2nd September 1879, page 587.
				All officers of the rank of Sub-Collector or Head Assistant Collector in charge of divisions invested with powers of a Collector under sections 15, 17, 30, 31, 45 and 51—54.	Fort St. George Gazette, 30th November 1881, page 699.
			8	All puttahs granted by a Government officer or by any assignee of Government revenue in the Madras Presidency to holders of land under ryotwarry settlement exempted from stamp duty.	Fort St. George Gazette, 1st June 1881, page 271.
1879	III	Destruction of Records.	2	Rules regulating the destruction of civil and criminal records.	High Court circulars, 16th August 1882; 3rd October 1882, No. 2302; 9th March 1883, No. 739. Fort St. George Gazette, 13th March 1883, page 347, Part II.
1879	IV	Railways ...	6	The Commissioner of Police, Madras, appointed to receive reports of accidents on the South Indian Railway line within the Town of Madras.	G.O., 1st September 1882, No. 1154, Judicial.
			10	Forms of risk notes	Proceedings of Government, Public Works department (R.), 6th December 1880, and 22nd February 1881, Nos. 716 and 171.
			50	Second-class Magistrate of Viroothooputty invested with jurisdiction over certain portions of the railway line within the fences, in the Tinnevelly district.	G.O., 4th October 1882, No. 1464, Judicial.
			52	Rules for fencing	G.O., No. 908, dated 6th April 1875, Public Works department.
1879	XI	Local Authorities Loans.	7	Rules	Fort St. George Gazette, 4th September 1883, pages 579—581.
1879	XVIII	Legal Practitioners.	1	Extension of the Act to Madras.	Fort St. George Gazette, 20th September and 7th December 1881, pages 491 and 707, Part I.
			6, 7, and 26.	Rules by the High Court for the examination, admission, &c., of pleaders.	Fort St. George Gazette, 16th March 1882, pages 334 and 340, Part II; 2nd May 1882, page 535, Part II; 26th September 1882, page 1069, Part II; 6th February 1883, page 188, Part II; 1st May 1883, page 530.
			37	Rules for the conduct of examinations.	Fort St. George Gazette, 25th April 1882, page 224; 18th November 1884, page 743.
1879	XXI	Extradition ...	...	Rules *	Fort St. George Gazette, 23rd March 1875, page 606.
				Rules 5, amended	Fort St. George Gazette, 29th August 1876, page 1213.
				Rules for arresting criminals escaping from British territory into Mysore.	Fort St. George Gazette, 24th January 1871, page 76. G.Os., 7th April 1873, No. 337, and 22nd June 1875, No. 1397.
1880	VII	Indian Merchant Shipping.	7	Extending this section to certain ports.	Fort St. George Gazette, 25th May 1880, page 222.
			11	Appointing certain officers to be detaining officers.	
			14	Appointing certain Magistrates to be Judges of Courts of Survey.	
			24	Appointing the Master Attendant at Madras and his Deputy to be Scientific Referees.	

* These rules made under Act XI of 1872 are kept in force by section 2, Act XXI of 1879.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1880	VII	Indian Merchant Shipping.	...	Scale of provisions	G.O., No. 320, dated 9th July 1880, Marine.
			23	Madras Court of Survey rules ...	Fort St. George Gazette, 13th September 1881, page 476, Part I.
				Rules IX and XIV, amended ...	Fort St. George Gazette, 23rd November 1881, page 689.
			7 and 31	Scale of fees for Survey ...	G.O., 6th June 1881, No. 263, Marine.
			54	Appointing the Shipping Master to be the "local authority."	Fort St. George Gazette, 16th November 1881, Part I, page 674.
			68	Rules for examination of ship surveyors.	Fort St. George Gazette, 27th June 1882, page 335, Part I.
				Proviso added to No. X of the above rules.	Fort St. George Gazette, 28th August 1883, page 557.
1881	IV	Madras Port Dues.	2	Increase in rate of Port Dues in Madras Harbour.	Fort St. George Gazette, 16th March 1881, page 143; 1st June 1881, page 264, Part I.
1881	VIII	Petroleum ...	1, cl. 3	Extending Act to the Port and City of Madras and to all Municipalities.	Fort St. George Gazette, 10th July 1883, page 413; 28th August 1883, page 552.
			4, 5, 7, 8, and 9	Rules under sections 7 and 9 ...	Fort St. George Gazette, 10th July 1883, page 413; 28th August 1883, page 552; 19th February 1884, page 110; 21st December 1883, page 856; 18th November 1884, page 743.
			10	Certain officials authorized to exercise powers conferred by this section.	Fort St. George Gazette, 16th October 1883, page 663; 6th November 1883, page 706; 26th August 1884, page 520.
			7 and 9	Rules to regulate importation ...	Fort St. George Gazette, 10th July 1883, pages 413—416; 19th February 1884, page 110.
1881	XV	Factories ...	3 and 18	Appointment of certain officers to be Inspectors of Factories.	Fort St. George Gazette, 1st April 1882, page 199.
				Revised Rules	Fort St. George Gazette, 15th August 1882, page 429.
				Addition to Rule 22	Fort St. George Gazette, 28th November 1882, page 700.
1881	XVI	Obstructions in Fairways.	8	Rules	Fort St. George Gazette, 29th January 1884, page 54.
1882	VII	Powers of Attorney.	4	Rules	Fort St. George Gazette, 19th August 1884, page 504.
1882	X	Criminal Procedure Code.	197	Board of Revenue vested with power to sanction prosecution of Tahsildars, Deputy Tahsildars and Talook Sheristadars for offences committed in their magisterial capacity.	Fort St. George Gazette, 16th September 1873, page 1437; 7th October 1873, page 1544.
				Power in case of Sub-Registrars.	Fort St. George Gazette, 7th August 1876.
				Power in case of other Magistrates reserved to the Governor in Council.	Fort St. George Gazette, 16th September 1873, page 1437.
			4, cl. (o)	Declaring existing and future police stations to be police stations under the Code, and declaring that the senior constable present at any such station shall be deemed to be the officer in charge of the police station for the time being during the absence of the "officer in charge" as defined in the section.	Fort St. George Gazette Extraordinary, 1st January 1883.
			8	Altering limits of divisions in the Tanjore district.	Fort St. George Gazette, 7th November 1882, Part I, page 645.
				Transferring the village of Vaugaycoolam from the Shermadevy to the Tinnevelly subdivision (Tinnevelly district).	Fort. St. George Gazette, 16th January 1883, Part I, page 24.
			3	Constituting the Ramalcottah talook in the Kurnool district a sub-division.	Fort St. George Gazette, 6th March 1883, Part 1, page 124.
				Transferring certain villages from the sub-division of the Joint Magistrate to that of the Assistant Magistrate in the district of Tinnevelly.	Fort St. George Gazette, 3rd April 1883, Part I, page 188.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	X	Criminal Procedure Code.	...	Transferring the village of Coorchicoolam from the jurisdiction of the Head Assistant Magistrate to that in charge of the Assistant Magistrate (Tinnevelly talook) in the district of Tinnevelly.	Fort St. George Gazette, 17th July 1883, Part I, page 429.
				Transferring the villages of Hanoomanhully and Nandihully from the jurisdiction of the Talook Magistrates of Coodligy and Hoovinhadgally respectively to that of the Talook Magistrate of Hospett and the village of Mooddapooram from the jurisdiction of the Bellary Sub-Magistrate to that of the Sub-Magistrate, Cumply.	Fort St. George Gazette, 14th August 1883, Part I, page 515.
			8 and 13	Constituting sub-divisions in the districts of South Canara, Malabar, Ganjam and Vizagapatam, and appointing officers to hold charge of them.	Fort St. George Gazette, 31st July 1883, page 468.
				Above notification modified ...	Fort St. George Gazette, 18th September 1883, Part I, page 607.
			10	Appointing existing Magistrates of districts to be Magistrates of districts under the Code.	Fort St. George Gazette, 25th March 1873, page 598.
			13	Appointing certain classes of officers to be Magistrates of divisions of districts under the Code.	Do. do.
				Delegating to all Magistrates of districts the power to place Magistrates of the 1st or 2nd class in charge of divisions of districts.	Do. do.
			18	Establishing Presidency Magistrates' Courts for two divisions within the town of Madras.	Fort St. George Gazette, 1st May 1877, Part I, page 287.
			21	Rules for regulating proceedings before benches of Magistrates in the town of Madras.	Fort St. George Gazette, 15th July 1884, page 414.
			32	All Magistrates of the 2nd class authorized to continue to pass sentences of whipping.	Fort St. George Gazette Extraordinary, 1st January 1883.
			36 and 37	Investing all Magistrates (not special Magistrates) appointed before this Act came into force and exercising jurisdiction with the powers of the respective classes conferred by sections 36 and 37.	Fort St. George Gazette, 5th June 1883, Part I, page 345.
			174	Authorizing certain medical officers to hold post-mortem examinations.	Fort St. George Gazette, 16th March 1875, page 533.
				Authorizing Civil Apothecaries in addition to above to examine corpses.	Fort St. George Gazette Extraordinary, 1st January 1883.
			274	Fixing the number of the Jury in trials before Courts of Session.	Fort St. George Gazette, 25th March 1873, page 598.
			276	Selecting Jury by lot	High Court Proceedings, 11th April 1883, No. 1353.
			313	Jury Rules	Fort St. George Gazette Supplement, 25th April 1876; Fort St. George Gazette, 4th September 1883, page 1019.
			320	Exempting certain classes of officials of the South Indian and Madras Railways from liability to serve as Jurors or Assessors in the Mofussil Courts.	Fort St. George Gazette, 17th April 1883, Part I, page 225.
				Exempting all officers of the Public Works Department.	G.O., 23rd March 1876, No. 574 (Judicial).
				Exempting District Traffic Superintendents of the South Indian Railway from liability to serve as Jurors or Assessors in the Mofussil Courts.	Fort St. George Gazette, 14th August 1883, Part 1, page 515.
				Exempting all persons residing more than 10 miles from Sessions Court.	G.O., 29th May 1883, No. 1419 (Judicial).
				Exempting all Superintendents of Jails and their subordinates.	Fort St. George Gazette, 26th February 1884, page 133.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	X	Criminal Procedure Code.	392	Mode of inflicting punishment of whipping.	Fort St. George Gazette Extraordinary, 1st January 1883.
			394	All Superintendents of Jails invested with the powers of Special Magistrates of the lowest grade for the purpose of superintending whipping in jails.	Fort St. George Gazette, 2nd December 1873, page 1925.
				Heads of villages not to be prosecuted for acts done in their official capacity without the sanction of the District Magistrate.	G.O., 22nd October 1873, No. 1682.
				Trial by Jury extended to all districts except the Agencies of Ganjam, Godavery and Vizagapatam.	Fort St. George Gazette, 20th March 1883, page 150.
				High Court Proceedings relating to selecting Jury by lot.	11th April 1883, No. 1353.
			407	Appointing officers who have been empowered under section 412, Act XXV of 1861, to continue to exercise the power of hearing appeals.	Fort St. George Gazette, 25th March 1873, page 598.
			435	Empowering all Sub-division Magistrates to call for and examine the record of proceedings before any inferior criminal court.	Fort St. George Gazette, 9th January 1883, Part I, page 13.
			269	Directing the extension of the system of trial by Jury to all Courts of Session in the Madras Presidency except those in the Agencies of Ganjam and Godavery and fixing the number of the Jury at 5, also abolishing the Jury system in the Agency of Vizagapatam.	Fort St. George Gazette, 20th March 1883, Part I, page 150.
			464 and 466	Examination of lunatics ...	Fort St. George Gazette, 20th August 1878, Part I, page 474.
			541	Appointing places for the confinement of European British subjects sentenced to imprisonment.	Fort St. George Gazette, 24th December 1872, page 2064.
				Appointing additional places for the confinement of European British subjects sentenced to imprisonment.	Fort St. George Gazette, 7th January 1873, page 7.
			544	Rules for regulating payment of expenses of complainants and witnesses before criminal courts.	Fort St. George Gazette, 1st July 1873, page 1096.
				Rules for regulating payment of expenses of complainants and witnesses attending the criminal courts in the town of Madras.	G.O., No. 1294, dated 24th May 1877 (Judicial).
			553	Consolidated rules for submission of calendars.	High Court circulars, 8th November 1881, and 27th March 1882, No. 554.
				Directing that all Session Court proceedings addressed to any Magistrate subordinate to the District Magistrate be sent through the District Magistrate.	High Court Proceedings, 10th November 1877, No. 2609.
				Prescribing the procedure to be followed in obtaining copies of the records in cases in which District Magistrates may require further information than that provided in section 302 of the Code of Criminal Procedure in regard to session trials.	High Court Proceedings, 14th October 1879, No. 1767.
				Regulating the transmission of original records of sessions trials to High Court.	High Court Proceedings, 29th October 1879.
				Directing that no copies of records of any criminal court shall be issued unless certified to be true.	High Court Rule, 29th November 1879.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	X	Criminal Procedure Code.	...	Recommendation for remission or commutation of punishment shall be submitted to Government through the High Court.	High Court Proceedings, 3rd February 1880.
				Prescribing that when it is competent to a court to award more than one sentence for an offence or offences, the court shall declare in its judgment in respect of which offence any sentence awarded is imposed.	High Court Proceedings, 19th March 1880.
				Every summons and every adjournment shall state the place in which the case to which it relates will be heard.	High Court Proceedings, 22nd February 1881, No. 330.
1882	XII	Indian Salt ...	8	Fixing the price of salt sold at Tuticorin for export to Penang exclusive of duty.	Fort St. George Gazette, 17th October 1882, page 604.
1882	XIV	Civil Procedure Code.	269	Rules regarding maintenance and custody of live stock, &c.	Fort St. George Gazette, 27th May 1884, page 330.
			336	Insolvent jurisdiction	Fort St. George Gazette, 23rd October 1877, Part I, page 682.
			538	Summary procedure on negotiable instruments in District and Sub-Judges' Courts.	Fort St. George Gazette, 23rd October 1877, Part I, page 682.
				Above applied to all District Moonsifs' Courts in the Madras Presidency.	Fort St. George Gazette Extraordinary, 1st January 1883; 16th January 1883, Part I, page 24.
			652	High Court rules for regulating the procedure of the courts in the exercise of the powers conferred in chapter XX.	Fort St. George Gazette, 30th April 1878, Part II, page 656.
				Prescribing the mode for issuing summons to persons in the employment of Railway Companies.	High Court Proceedings, 24th July 1878, No. 1103.
				Regulating the issue of commissions to subordinate public servants for any of the purposes specified in sections 392, 394 and 396, of the Civil Procedure Code.	High Court Proceedings, 12th August 1878, No. 1218.
				Prescribing that the sentence of imprisonment adjudged under section 359 shall state whether imprisonment is to be rigorous or simple.	High Court Rule, 22nd September 1879, No. 1571.
				Prescribing scale of travelling and other expenses to persons summoned as witnesses.	High Court Rule, 18th November 1879, No. 2029.
				Directing that decrees of subordinate courts forwarded for execution in courts in the Mysore province shall be accompanied by a translation in the Canarese or Teloogoo language unless the decree has been originally written in English or in the Canarese or Teloogoo language.	High Court Rule, 21st November 1879.
				Directing that copies of or extracts from the records of the proceedings of any civil court shall be certified as true before issue.	High Court Rule, 12th December 1879; Fort St. George Gazette, 23rd December 1879, Part II, page 1414.
				Prescribing the deposit within seven days of the fee chargeable for the preparation and copy of a decree passed under section 29, Act I of 1877.	High Court Rule, 2nd February 1880, No. 204.
				Prescribing the insertion of the registration district or sub-district in the description of property in suits for land.	High Court Rule, 20th October 1881, No. 2000.
				Prescribing the appointment of some competent officer of court to act during the absence of the presiding Judge in the release of persons arrested on civil processes.	High Court Rule, 28th April 1882, No. 835.
				To regulate the disposal of the property of insolvent judgment debtors and the appointment of receivers.	High Court Rule, 12th May 1882, No. 908.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	XIV	Civil Procedure Code.	...	Prescribing that no appeal from any appellate decree shall be received in the High Court unless it is accompanied by copies of the decree and judgment of the court of first instance as well as by copies of the decree (and judgment) appealed against.	High Court Rule, 29th July 1882, No. 1457.
				Dates of submission of their records by moonsifs.	High Court Rule, 12th November 1883; Fort St. George Gazette, 20th November 1883, Part II, page 1375.
1882	XV	Presidency Small Cause Courts.	5	* Proclamation declaring the constitution of the Madras Court of Small Causes.	Fort St. George Gazette, 19th November 1880, page 1053.
			9	Rules as to form of plaint and summons.	Fort St. George Gazette, 25th October 1882, Part II, page 1113.
				Rules as to applications for new trials.	Small Cause Court Rule, 9th August 1882; Fort St. George Gazette, 15th August 1882, Part II, page 920.
			23	Declaring that certain portions of the Civil Procedure Code shall not extend or be applied to the Madras Small Cause Court.	Fort St. George Gazette, 23rd January 1883, Part I, page 40.
			51	Appointment of bailiffs, &c., and their remuneration.	G.O., Judicial, 2nd September 1875, No. 1929.
			75	Fixing fees payable under section 71 of the Act.	Fort St. George Gazette, 23rd January 1883, page 40.
			75	Security to be given by the chief clerk and his subordinates.	G.O., 17th November 1869, No. 1816; 30th November 1869, No. 1894.
				Rules in summary suits	G.O., 1st October 1875, No. 2137.
1883	V	Indian Merchant Shipping.	28	Scale of provisions for lascars, &c.	Fort St. George Gazette, 12th August 1884, page 491.
			34	Rates of fees to be paid by candidates for examination as masters and mates.	Fort St. George Gazette, 12th August 1884, page 491.

III.—GOVERNOR-GENERAL'S ACTS APPLICABLE TO MADRAS.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1839	XXIV	Agency Tracts (Ganjam and Vizagapatam).	4	Rules ... ... Revised Rules	24th Dec. 1868, No. 1940, Judl. G.O., 14th July 1881, No. 1377.
1844	VI	Transit Duties...	8, 9 and 12	Declaring route by which goods to be allowed to pass into or out of French territory and constituting certain railway stations as customs chowkies, and authorizing the station masters thereof to exercise certain powers.	Fort St. George Gazette, 16th December 1879, Part I, page 838.
			12	Certain other routes declared ...	Fort St. George Gazette, 22nd August 1882, page 452.
1852	XIX	Town Abkarry.	2	Certain tract excluded as regards the sale of arrack from suburbs of Madras as defined in section 40.	Fort St. George Gazette, 1st July 1879, page 465, Part I.
			6	Conditions of licenses for the retail sale of beer, wine and European spirits in the town of Madras.	Fort St. George Gazette, 7th July 1874, page 1044.
				Forms of licenses for arrack and toddy shops.	Revenue Board's Proceedings, 6th May 1863, No. 2693, and 10th April 1874, No. 815.
1873	III	Madras Civil Courts.	3 and 10	Abolition of the District and Session Court of North Tanjore, Tranquebar.	Fort St. George Gazette, 8th July 1884, page 403.
			4 and 10	Fixing the local limits of the jurisdiction of the Subordinate Judge of Cochin.	Fort St. George Gazette, 5th February 1884, page 71.
			7	Rules	Fort St. George Gazette, 19th August 1884, page 504.
			9	Forms and dimensions of the seals to be used by the District Courts, Subordinate Judges' Courts and District Moonsifs' Courts.	G.O., 13th March 1873, No. 386, Judicial.

* NOTE.—This proclamation made under Act IX of 1850, section 1, is kept in force by section 2 of Act XV of 1882.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1873	III	Madras Civil Courts.	10	Certain amshoms transferred from the jurisdiction of the District Judge, North Malabar, to the jurisdiction of the District Judge, South Malabar.	Fort St. George Gazette, 16th October 1883, page 663.
			28	Notification investing Small Cause Court powers on Sub-Judges and District Moonsifs, Judicial.	Fort St. George Gazette, 18th March 1873, page 556.
			30	Period of commencement of the annual adjournment of the courts subordinate to the High Court.	High Court circular, dated 16th August 1876, No. 1850.
1877	V	Straits Settlements Emigration.	1, cl. 3	Brought into effect from 1st January 1878.	Fort St. George Gazette, 20th November 1877, page 777.

IV.—MADRAS ACTS.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1863	V	Madras Pier ...	2	Levy of Tolls	Fort St. George Gazette, 15th June 1875, page 1032.
			14	Bye-Laws	Fort St. George Gazette, 14th February 1865, page 320.
1864	III	Mofussil Abkarry.		Revised forms of licenses ...	Revenue Board's Proceedings, 9th March 1881 and 17th January 1882, Nos. 410 and 124.
			28	Home manufacture of fermented liquor for bonâ fide domestic consumption declared illegal unless licensed with certain exceptions.	Fort St. George Gazette, 5th August 1873, page 1259.
				Exemption of Bhadrachellam and Rekapully talooks in the Godavery district from the above rule.	Fort St. George Gazette, 14th July 1874, page 1080.
				Rules framed by the Board of Revenue.	Maclean's Standing Orders, Nos. 81—89.
1864	IV	Village Cess ...	11	Extension of Act to— (1) Trichinopoly district ...	Fort St. George Gazette, 20th December 1864, page 1018.
				(2) Godavery district	Fort St. George Gazette, 5th July 1870, page 836.
				(3) Kurnool district	Fort St. George Gazette, 15th June 1869, page 912.
				(4) Salem district	Fort St. George Gazette, 21st March 1871, page 443.
				(5) Tinnevelly district ...	Fort St. George Gazette, 26th November 1872, page 1900.
				(6) Sydapett talook, Chingleput district.	Fort St. George Gazette, 9th March 1876, page 403.
				(7) Other talooks of Chingleput district.	Fort St. George Gazette, 5th August 1879, page 536.
				Certain villages in the Chingleput district.	Fort St. George Gazette, 13th March 1883, page 141; 5th June 1883, page 348.
				(8) Masulipatam portion of the Kistna district.	Fort St. George, Gazette, 6th August 1878, pages 444-445.
				(9) Nellore district	Fort St. George, Gazette, 18th March 1879, page 222; 13th November 1883, page 718.
				Goontoor portion of the district.	Fort St. George Gazette, 18th June 1878, page 333.
				(10) Reimposition of cess in four talooks of Tinnevelly in which it had been suspended.	Fort St. George Gazette, 22nd June 1880, page 261.
				(11) Reduction of cess in two villages in Ambasamoodram talook, Tinnevelly district.	Fort St. George Gazette, 10th August 1880, page 340.
				(12) Cuddapah district ...	Fort St. George Gazette, 4th January 1881, page 3.
				(13) Wallajahpett talook, North Arcot district.	Fort St. George Gazette, 13th June 1882, page 299.
				(14) Chidambaram talook, South Arcot district.	Fort St. George Gazette, 19th September 1882, pages 520—523.
				(15) South Canara district ...	Fort St. George Gazette, 5th December 1882, page 720.
				(16) Extension to the Neilgherry district.	Fort St. George Gazette, 26th February 1884, page 138.
1865	I	Alteration of Limits of Districts.	1	Limits of districts of Chingleput and South Arcot.	Fort St. George Gazette, 25th March 1884, page 203.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1865	VII	Irrigation Cess.	1	Water-rate rules, Godavery and Kistna deltas.	Revenue G.O., 16th June 1873, No. 617.
				Amended rules	Revenue G.O., 23rd April 1877, No. 1516; Board's Proceedings, 12th May 1877, No. 2188.
				Water-rate rules, Kurnool and Cuddapah canals.	Revenue G.O., 5th December 1877, No. 3359.
				Water-rate rules for other districts.	Board's Standing Order No. 5, Macleane's edition.
1866	I	Military Cantonments.	16, 19	Revised Cantonments Rules, 1876.	......
				Amendment of rule 63	G.O., 25th June 1880, No. 1511 (Judicial).
			40	Extension of Act to certain military cantonments.	Fort St. George Gazette, 2nd March 1866, page 357; 10th March 1868, page 568; 7th March 1869, page 745.
1866	II	Cattle Diseases.	1	Extension to Malabar	Fort St. George Gazette, 21st November 1876, page 131.
				Extension to Municipal limits of the City of Madras.	Fort St. George Gazette, 3rd December 1878, Part I, page 706.
				Extended to the Sydapett talook of the Chingleput district.	Fort St. George Gazette, 19th September 1882, page 511.
				Extended to the Kistna district.	Fort St. George Gazette, 12th December 1882, page 739.
				Extended to certain parts of the Trichinopoly district.	Fort St. George Gazette, 31st October 1882, page 638.
				Extended to certain parts of the Vizagapatam district.	Fort St. George Gazette, 20th November 1883, page 738.
				Extended to certain parts of the Chingleput district.	Fort St. George Gazette, 11th December 1883, page 813.
				Extension to Neilgherry district.	Fort St. George Gazette, 30th December 1879, Part I, page 870.
1869	V	Jails	3	Rules for the management and superintendence of jails.	G.O., 18th June 1883, No. 1620, and the "Jail Code."
			2	Assistant Surgeons authorized to exercise the powers of Superintendent of Jail during the latter's absence.	G.O., 31st July 1883, No. 2006.
1870	I	Canals and Ferries.	2, 5, 14	Application of Act to certain ferries in the Tanjore district and scale of fees.	Fort St. George Gazette, 17th January 1871, page 51; 21st May 1872, page 972.
				Application of Act to Vedaranyam canal, Tanjore district.	Fort St. George Gazette, 30th June 1874, page 1000.
			2 & 14	Application to certain ferry in the South Arcot district and scale of fees.	Fort St. George Gazette, 11th March 1873, page 511; 27th November 1883, page 772; 12th August 1884, page 492.
				Application to certain ferries in Kistna district and scale of fees.	Fort St. George Gazette, 4th June 1872, page 1032; 15th June 1880, page 252; 14th December 1881, page 728.
				Application to a certain portion of the Kistna river in the Kistna district and scale of fees.	Fort St. George Gazette, 23rd August 1870, page 1063; 16th May 1871, page 725.
				Application to a certain ferry between the Godavery and Kistna districts and scale of fees.	Fort St. George Gazette, 19th July 1881, page 381.
			2, 14, & 22	Application to certain ferries in the Godavery district and scale of fees and rules.	Fort St. George Gazette, 15th September 1874, page 1329; 30th June 1874, page 1006; 6th March 1883, page 125.
				Extension to certain ferries in the South Canara district and scale of fees and rules.	Fort St. George Gazette, 21st January 1879, pages 49-50; 17th February 1880, page 73.
				Application to certain ferries in the Malabar district and scale of fees and rules.	Fort St. George Gazette, 18th Februay 1879, pages 140—44; 17th February 1880, page 74; 25th January 1881, page 43.
				Application to certain ferries in the Trichinopoly district and scale of fees and rules.	Fort St. George Gazette, 4th January 1881, pages 3-4.
				Application to certain ferries in the Cuddapah district and scale of fees and rules.	Fort St. George Gazette, 5th October 1880, page 457; 7th December 1881, page 709.
			2 & 14	Application to certain ferry, Tanjore district, and rules.	Fort St. George Gazette, 8th January 1884, page 6; 1st April 1884, page 227.
			2 & 22	Application to certain ferry in the Cochin municipality and rules.	Fort St. George Gazette, 1st February 1882, page 58, and 23rd March 1882, pages 149-150.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1870	I	Canals and Ferries.	22	Ferry rules applicable to the Kistna district.	Fort St. George Gazette, 4th January 1881, pages 4-5.
			23	Rules for the regulation of the navigation of the Buckingham canal.	Fort St. George Gazette, 3rd April 1883, pages 191—199.
			23	A rule issued for ferries in the Tanjore district.	Fort St. George Gazette, 15th December 1874, page 1789.
				Revised rules for the regulation of the navigation of the Godavery and Kistna delta canals.	Fort St. George Gazette, 3rd April 1883, pages 191—199.
				Rules for the regulation of the canal traffic at Ellore, Bezwada, and head of the Eastern delta canals.	Fort St. George Gazette, 18th April 1882, page 217.
			31	Delegation of powers conferred on the Governor in Council by certain sections to collectors of districts to which the Act is extended.	Fort St. George Gazette, 25th July 1871, page 1230.
				Application to certain ferry in the South Arcot district, and scale of fees and rules.	Fort St. George Gazette, 9th September 1884, page 550.
				Addition to exemptions in the Kistna rules.	Fort St. George Gazette, 8th August 1882, page 420.
				South Arcot.—Act extended to—.	Fort St. George Gazette, 12th September 1882, No. 497.
				Tinnevelly.—Extension of Act to certain ferries in —.	Fort St. George Gazette, 19th December 1882, page 755; 5th January 1883, page 3; 22nd August 1882, page 453.
				Kistna.—Extension of Act to certain ferries in — district.	Fort St. George Gazette, 5th January 1883, page 3.
1871	III	Towns' Improvement.	9	Rules for election of non-official commissioners in certain municipalities.	Fort St. George Gazette, 29th April 1879, Part I, page 326.
1871	IV	Local Funds.	2, 3, & 36	Declaring Local Fund circles of the several districts and the levying of cess.	Fort St. George Gazette, 9th May 1871, page 691.
				Above revised as regards Godavery.	Fort St. George Gazette, 21st January 1873, page 94.
			10	All hospitals and schools, &c., in the town of Gooty transferred from the Municipal commissioners to the Local Fund Board.	Fort St. George Gazette, 25th May 1880, page 222.
			24	Rates of travelling allowance to Local Fund Engineers, &c., fixed in accordance with those prescribed in the Public Works Code.	Fort St. George, Gazette, 13th April 1881, page 198.
			36	Rate of cess raised in Chittore circle to one anna.	Fort St. George Gazette, 18th March 1873, page 556.
				Rate of cess in Kurnool circle raised to one anna.	Fort St. George Gazette, 23rd January 1883, No. 41.
1871	VI	Salt Excise ...	26 & 30	Rules	Revenue Board's Standing Orders, Macleane's edition, Nos. 97, 98, 99 and 100.
			3	Conditions of license	Fort St. George Gazette Supplement, 1st March 1882.
			14	Hosdroog declared to be a port.	Fort St. George Gazette, 13th September 1881, page 479.
			45	Extension of Act to Malabar and South Canara.	Fort St. George Gazette, 12th June 1877, page 371.
				Extension to certain villages in Tinnevelly district.	Fort St. George Gazette, 23rd February 1882, page 94, Part I.
				Extension to certain tract in the Kistna, Chingleput, South Arcot and Tinnevelly districts.	Fort St. George Gazette, 13th March 1883, page 141.
				Extension to certain tract in the Nellore district.	Fort St. George Gazette, 20th March 1883, page 154; 15th May 1883, page 312; 30th October 1883, page 691; 21st December 1883, page 860.
				Extended to certain tract in the Tanjore district.	Fort St. George Gazette, 1st May 1883, page 268.
				Extended to certain tract in the Ganjam, Vizagapatam, Godavery and Nellore districts.	Fort St. George Gazette, 30th October 1883, page 691.
				Extended to certain tract in the Madura district.	Fort St. George Gazette, 11th December 1883, page 816.
				Extended to certain tract in the Kistna district.	Fort St. George Gazette, 8th January 1884, page 6.
				Extended to certain tract in the Madura district.	Fort St. George Gazette, 8th January 1884, page 6.

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1871	VI	Salt Excise ...	...	Extended to certain tract in the Nellore district.	Fort St. George Gazette, 8th January 1884, page 6.
				Extended to certain tract in the South Arcot.	Fort St. George Gazette, 29th January 1884, page 55.
				Extended to certain tracts in certain districts.	Fort St. George Gazette, 18th November 1884, page 745.
			44	Rules	Fort St. George Gazette Supplement, 9th March 1882.
1871	VII	Pier Act Amendment.	7	Extension to Calicut pier ...	For tSt. George Gazette, 24th September 1878, page 551.
1873	II	Boat Act Amendment.	2	Notification declaring the number of passengers and quantity of goods which should constitute a boat-load.	Fort St. George Gazette, 18th November 1873, page 1826.
1878	II	Earth Salt ...	1	Extension to certain districts ...	Fort St. George Gazette, 4th June 1878, page 313.
1878	III	Madras License Act.	28	Rules	G.O., Revenue Department, 4th May 1878, No. 664.
1878	VI	Salt Commissioner.	1	Delegation of powers of a Collector to the Deputy Commissioner of the Northern division in certain districts.	Fort St. George Gazette, 25th March 1884, page 203.
				Delegation of powers of a Collector to the Deputy Commissioner, Southern division.	Fort St. George Gazette, 25th March 1884, page 203.
				Delegation of certain powers to the Deputy Commissioners, Northern and Southern divisions.	Fort St. George Gazette, 25th March 1884, page 203.
			2	Withdrawal of powers of Collector under the Salt laws.	Fort St. George Gazette, 23rd March 1881, Part I, page 159.
				The Salt Commissioner authorized to delegate his powers under the Salt laws to certain Deputy and Assistant Commissioners in respect of certain local areas as regards certain districts.	Fort St. George Gazette, 25th March 1884, page 203.
1878	VIII	Coffee Stealing.	2	Extension to Neilgherry district and the Wynaud in Malabar.	Fort St. George Gazette, 22nd October 1878, Part I, page 604.
				Extension to Upper and Lower Pulneys and Shiroomullay in Madura district.	Fort St. George Gazette, 28th January 1879, Part I, page 86.
				To portions of Tinnevelly district.	Fort St. George Gazette, 4th November 1879, page 747.
				To South Canara	Fort St. George Gazette, 18th April 1882, page 215.
				To certain portion of Salem district.	Fort St. George Gazette, 11th March 1884, page 171.
				Extension to certain talooks, Malabar district.	Fort St. George Gazette, 11th October 1881, page 525.
1879	I	Amending Madras Act II of 1866 (Cattle Diseases).	...	Came into operation in the city of Madras from 25th April 1879.	Fort St. George Gazette, 29th April 1879, page 325.
1879	II	Neilgherry Game	2	Certain birds added to the list of game.	Fort St. George Gazette, 13th April 1880, Part I, page 158.
			3	Fixing close season	Fort St. George Gazette, 8th February 1881, page 70.
			5	Protection of acclimatised fish...	Fort St. George Gazette, 25th November 1884, page 756.
1879	III	Hackney Carriages.	31	Rates and fares for hackney carriages.	Fort St. George Gazette, 19th August 1879, Part I, page 559.
1879	IV	Prevention of cruelity to Animals.	1	Veterinary infirmary at Sydapett declared the place for treatment of animals.	Fort St. George Gazette, 10th October 1882, page 593.
				Veterinary Lecturer in the Sydapett Agricultural School appointed the officer to give certificates.	(Fort St. George Gazette, 10th October 1882, page 593.)
1879	V	Abkarry Laws Amendment.	...	Came into operation from 23rd June 1879.	Fort St. George Gazette, 1st July 1879, page 465, Part I.
1880	I	Gunpowder ...	4	Extension to certain municipalities.	Fort St. George Gazette, 16th August 1881, page 434; 28th November 1882, page 700.
				Extension to Cuddapah and Salem Municipalities.	Fort St. George Gazette, 17th April 1883, page 226; 15th May 1883, page 311.
				Cancelled as regards the Berhampore Municipality.	Fort St. George Gazette, 16th October 1883, page 664.
1881	I	Marine Police ...	14	Withdrawal of operation of Act from Port of Negapatam.	Fort St. George Gazette, 8th January 1884, page 5.
				Withdrawal of the Port of Madras from the operation of the Act.	Fort St. George Gazette, 8th July 1884, page 404.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	I	Salt Laws Amendment.	1	Extension to certain local areas.	Fort St. George Gazette, 1st and 18th April 1882, pages 201 and 217, Part I ; 5th September 1882, page 478 ; 12th September 1882, page 496.
				Excluding the agency tracts of the Ganjam, Godavery and Vizagapatam districts.	Revenue G.O., 16th January 1883, page 25.
				Extension to Madras district ...	Fort St. George Gazette, 30th May 1882, page 282, Part I.
				Extension to Coimbatore circle.	Fort St. George Gazette, 13th June 1882, page 299, Part I.
				Extension to Madanapully talook.	Fort St. George Gazette, 5th September 1882, No. 478.
				Extension to Calastry zemindarry.	G.O., 7th September 1882, No. 956.
				Extension to Salem	Fort St. George Gazette, 19th December 1882, No. 755.
				Rules for grant of compensation to persons improperly arrested or charged.	Fort St. George Gazette, 29th August 1882, pages 462-63.
			27 (*i*)	Rules for the adjudication of confiscations and confiscated articles.	Fort St. George Gazette, 29th August 1882, pages 463-64.
			27 (*j*) and 28	Rules for prohibition of the manufacture and refining of saltpetre.	Fort St. George Gazette, 19th September 1882, pages 517—520.
1882	V	Madras Forest...	1	Bringing Act into operation ...	Fort St. George Gazette, 26th December 1882, page 788.
			4 and 25	Forest reserves constituted in the Kurnool district.	Fort St. George Gazette, 8th May 1883, page 292; 4th December 1883, pages 796—98.
				Forest reserves constituted in the Neilgherry district.	Fort St. George Gazette, 29th May 1885, pages 333-5; 8th January 1884, page 7; 29th January 1884, pages 56—59 5th August 1884, page 471; 7th October 1884, page 619; 9th December 1884, page 794.
				Forest reserves constituted in the Coimbatore district.	Fort St. George Gazette, 3rd July 1883, page 405; 21st December 1883, pages 851—862; 25th March 1884, page 204; 1st April 1884, pages 218—226; 15th July 1884, page 420; 7th October 1884, page 621; 2nd December 1884, page 780.
				Forest reserves constituted in the Cuddapah district.	Fort St. George Gazette, 12th February 1884, page 98; 18th March 1884, page 188; 20th May 1884, pages 311, 312; 23rd September 1884, page 586; 25th November 1884, page 761.
				Forest reserves constituted in the Malabar district.	Fort St. George Gazette, 23rd October 1883, page 676; 5th February 1884, page 77; 26th February 1884, page 139; 10th June 1884, page 359; 5th August 1884, page 469; 28th October 1884, page 685; 25th November 1884, page 762.
				Forest reserves constituted in the Madura district.	Fort St. George Gazette, 13th November 1883, page 721; 18th March 1884, page 188; 20th May 1884, page 312.
				Forest reserves constituted in the Nellore district.	Fort St. George Gazette, 13th November 1883, pages 718-19; 11th December 1883, pages 818-19; 13th May 1884, page 297.
				Forest reserves constituted in the Bellary district.	Fort St. George Gazette, 4th December 1883, page 796; 25th March 1884, page 204; 3rd June 1884, page 348; 30th September 1884, pages 603—606; 30th September 1884, pages 603—605.
				Forest reserves constituted in the Trichinopoly district.	Fort St. George Gazette, 11th December 1883, page 817; 5th February 1884, page 76; 17th June 1884, page 369; 23rd September 1884, pages 586—588.

Year.	Number.	Subject of Act.	Section.	Subject of Rules or Notification.	Number and Date of Gazette.
1882	V	Madras Forest.	...	Forest reserves constituted in the Anantapore district.	Fort St. George Gazette, 21st December 1883, page 860; 24th June 1884, page 384; 21st October 1884, page 661.
				Forest reserves constituted in the Tinnevelly district.	Fort St. George Gazette, 22nd January 1884, pages 38—41; 21st October 1884, page 664.
				Forest reserves constituted in the Chingleput district.	Fort St. George Gazette, 30th September 1884, page 603; 8th July 1884, page 405; 30th September 1884, page 603; 28th October 1884, page 689.
				Forest reserves constituted in the North Arcot district.	Fort St. George Gazette, 12th February 1884, pages 95, 96, and 97; 13th May 1884, page 297; 21st October 1884, page 672; 18th December 1884, page 809.
				Forest reserves constituted in the South Canara district.	Fort St. George Gazette, 27th May 1884, page 337.
				Forest reserves constituted in the Kistna district.	Fort St. George Gazette, 5th August 1884, page 473.
				Forest reserves constituted in the Ganjam district.	Fort St. George Gazette, 28th October 1884, page 690.
			26	Rules for the regulation of the use of the pasturage and of the natural produce of lands at the disposal of Government and not included in a reserved forest or within the limits of a municipality.	Fort St. George Gazette, 11th March 1884, page 173; 22nd July 1884, page 433.
				Rules for the regulation of the use of pasturage, &c., in the "Koomakee" lands in South Canara.	Fort St. George Gazette, 20th May 1884, page 313; 22nd July 1884, page 433.
			32	Application to the Cungoondy Zemindarry estate, North Arcot.	Fort St. George Gazette, 21st October 1884, page 660.
			35	Rules for import and export of timber between the Nizam's territories and the district of Kurnool.	Fort St. George Gazette, 24th July 1883, page 459.
			58	Rates of fines to be levied on all cattle trespassing in the Walayaur reserved forests.	Fort St. George Gazette, 24th June 1884, page 383.
				Fines on cattle found trespassing in the Botanical Garden, Manantoddy, Malabar.	Fort St. George Gazette, 19th August 1884, page 511.
			63	Rates at which permits will issue.	Fort St. George Gazette, 2nd September 1884, page 535.
				Rules regarding "Powers of Forest officers."	Fort St. George Gazette, 23rd September 1884, page 588.
				Rules for grant of rewards ...	Fort St. George Gazette, 23rd September 1884, page 590.
1882	VI	Madras Harbour Dues.	...	Came into force on 1st April 1884.	Fort St. George Gazette, 5th February 1884, page 72.
			3 and 4	Levy of Harbour dues and rates.	Fort St. George Gazette, 6th February 1884 (Extra.)
			5, 6 and 7	Rules made by local Government.	Fort St. George Gazette, 19th February 1884, page 117; 30th September 1884, page 599.
1883	I	Village Cess Act Extension.	...	Extension to Neilgherry district.	Fort St. George Gazette, 26th February 1884, page 138.
1883	II	Conduct of business by the Board of Revenue.	...	Came into force from 1st June 1883.	Fort St. George Gazette, 5th June 1883, page 344.
1883	III	Cocanada Port Dues.	...	Came into force from 1st February 1884.	Fort St. George Gazette, 8th January 1884, page 5.
1883	IV	Village Moonsifs' Jurisdiction.	...	Came into operation on 1st April 1884.	Fort St. George Gazette, 22nd January 1884, page 34.
1884	I	City of Madras Municipal Act.	...	Came into operation from 20th March 1884.	Fort St. George Gazette (Extra), 20th March 1884.
			378	Vaccination to be compulsory from 15th May 1884.	Fort St. George Gazette, 8th April 1884, page 235.
1884	II	Maintenance of Boundary Marks.	...	Came into operation from 8th July 1884.	Fort St. George Gazette, 8th July 1884, page 404.
1884	III	Revenue Recovery Act Amendment.	...	Came into operation from 23rd September 1884.	Fort St. George Gazette, 23rd September 1884, page 586.